SCU-420 Series

System Control Units

Features

On Site Control
- NSI and third party central receive antennas
- Spare closures and auxiliary functions

MC5 Remote Control Interface
- Provides the interface for the MC5 remote control of the central receive antenna, receiver and spectrum analyzer
- Acts as a communications hub for the MC5 remote control of other equipment at the remote site, such as switchers, routers, transmitters and PTZ cameras

Advanced Positioner Control
- Advanced regenerative control of positioner for steerable central receive antennas
- Eliminates use of relays for positioner control
- Processor control eliminates stress on drive train

Wide Variety of Communications Paths
- 2- or 4-wire dedicated lines, microwave, dialup, IP or wireless modems
- Multiple remote devices controlled over a single communications path
- Each remote site can be configured for multiple communication paths

On Site Control and Remote Control Interface

NSI SCU-420 Series system control units combine superior performance with field proven reliability to provide complete on-site control and monitoring of central receive antennas. They also provide the interface to the NSI MC5 remote control master unit for the control of the central receive antenna, the associated digital receiver and spectrum analyzer as well as other equipment at the remote site, such as switchers, routers, transmitters and PTZ cameras.

Each system control unit features latching relays, digital inputs and outputs, analog inputs and outputs and serial COM ports to provide the interface requirements for each application. Each relay can be individually configured via a simple jumper to switch a ground, to switch a voltage (internal or external) or to provide a contact closure.

Advanced Positioner Control

System control units for steerable central receive antenna systems feature an advanced regenerative control for the positioner. This unique technology eliminates the use of relays. Processor controlled, it provides unsurpassed reliability by ramping the positioner speed up and down to eliminate stress on the drive train.

Control via a Wide Variety of Communications Paths

NSI system control units can use a wide variety of methods for communications with the NSI MC5 remote control master units, such as IP, 2- or 4-wire dedicated lines, dialup, microwave or wireless modems. Multiple system control units and remote devices can be controlled over a single communications path. In addition, each system control unit can be configured for control via multiple communications paths. This capability can be used to provide redundant communications paths to the remote site, such as using a dialup POTS as a backup to a dedicated line.

Reference 17445B

SCU-420 Series System Control Units
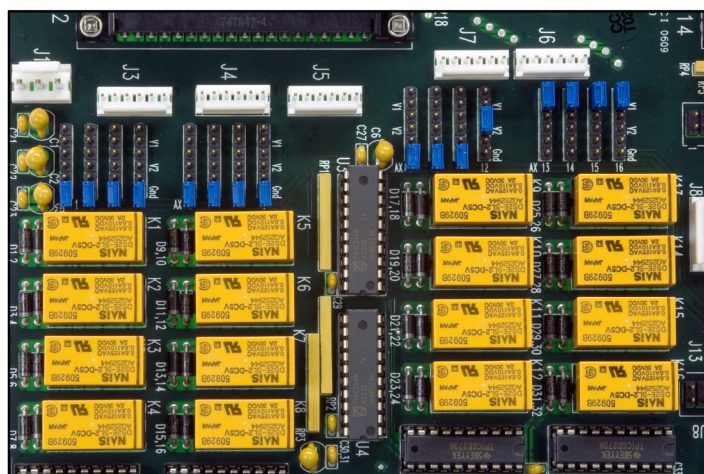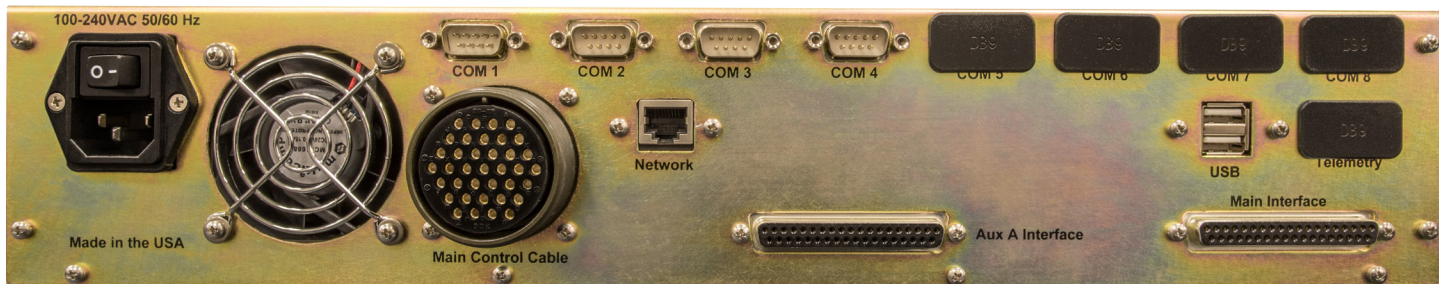
Individual Configuration of Each Relay

Each relay can be individually configured via a simple jumper to switch a ground, to switch a voltage (internal or external) or to provide a contact closure.

User Defined Control

The NSI MC5 remote control features an advanced Administrator module that enables the user to custom tailor the system to meet the operational requirements of each application. Through the Administrator, the user can define all of the parameters of the remote control and the system control unit, including the communications between the master and remote units, the interface to the equipment under control, relay operation for auxiliary functions and the local operation of the equipment via the system control unit's front panel LCD display and keypad. System control unit software and configuration changes are via download from the MC5 master unit or via USB memory stick.

Specifications

Dimensions	19" x 3.5" x 15"
Weight	15 lbs. (approximate)
Input Power	100-240 VAC, 50/60 Hz
Relays	Sixteen (16) DPDT latching relays (2 A @ 30 VDC)
Analog Output	Two (2) 12-bit DAC (-10 to +10 VDC @ 250 mA) available for the variable level LNA/BDC output function
Analog Input	Eight (8) 12-bit ADC available
Digital I/O	Four (4) digital inputs are included. An optional digital I/O board (24 digital I/O) is available.
Serial Ports	Four (4) RS-232 serial ports are included. Additional four (4) serial ports are available.
USB Ports	Three (3) USB ports
Ethernet	One (1) 10/100 Integrated NIC
Internal Power Supplies	Each system control unit can be equipped with up to two power supplies to provide DC voltage that is switched through the internal relays.
Positioner Control	Processor controlled regenerative drive
Communications	IP 2- or 4-wire modems Dialup Wireless modems

Specifications subject to change without notice.

Reference 17445B