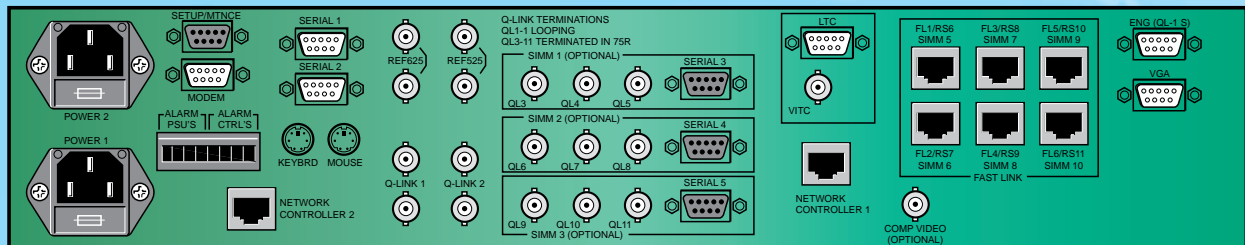


control system

SC-1000



The SC-1000 System Controller handles the management of the routers as well as providing additional redundancy features. With its Ethernet networking and comprehensive interface connections the SC-1000 provides an expandable platform to manage future communication and interface requirements for very large routing systems.

The SC-1000 occupies a 2U frame and may be equipped with a single controller and power supply, or two of each for redundancy. Each controller and power supply is individually accessible from the front of the frame and supports hot swapping with no disturbance to the controller that is operating.

By using a real-time operating system the SC-1000 has been specifically designed to avoid slow operation and slow boot-up time normally associated with PC based solutions.

Storage

The basic unit contains non-volatile memory for the storage of crosspoint settings and a 'flash disk' for the storage of configuration data files. A 3 1/2 " diskette drive for each controller allows WinSetup configurations to be easily transferred while a networked PC may be connected to the system for virtually unlimited storage.

User Interface

Via the front panels users may switch between controllers manually, review system status, or select a configuration file stored internally or on a 3 1/2 "diskette.

Features

- Single controller module, or two for redundancy, with automatic and manual changeover. Supports hot swap and changeover with total transparency.
- Single PSU module, or two for redundancy with power sharing for maximum reliability. Supports hot swap.

- Supports up to 16 independent routing levels each of 1024x1024.
- Supports up to 160 control panels.
- Fast boot-up time.
- Panels can be re-configured without disturbing the rest of the system.
- NVRAM for crosspoint status storage.
- Flash disk and 3 1/2 " Diskette drive for configuration storage.
- 2 Q-Link ports as standard, with the option for up to 9 more, allows for small groups of panels on each link providing protection against one link being damaged and maintaining high speed.
- Four serial ports as standard:
 - Maintenance port - RS232/422 used for downloading configurations and for other engineering functions.
 - Modem port - RS232 only, but not restricted to just modem use.
 - 2 ports for general purpose use, RS232/422.
 - Option for up to 3 more ports, RS232/422.
- WinSetup can be used to configure for RS232 or RS422 and choose the protocol type on a port-by-port basis.
- Ethernet port supporting TCP/IP protocol for configuration file downloading and router control. A separate port for each controller connects providing the ultimate in protection if one controller fails.
- Fully supports Quartz WinSetup, WinControl and WinQueue software.
- Support of the SNMP remote monitoring protocol.

Timecode

A Timecode input card is available as an option enabling accurate switching according to a real-time schedule. Both LTC and VITC are supported.

SNMP

SNMP support allowing remote monitoring of the SC-1000 core features over an Ethernet link by an external device.

SC-1000



TECHNICAL

USER INTERFACE

Front panel 20 characters x 4 lines LCD display with back-light. Used with navigation and enter buttons for control of options and viewing diagnostics.

STORAGE

Non-volatile memory Used to store route settings, 5 years.

Flash Disk 8Mbyte as standard, used to store configuration files. Can be upgraded to 144Mbyte or more.

Diskette 3 1/2" drive for loading or saving configurations and status information.

CONNECTIONS

Q-link 2 as standard, options for 9 more by installing CI-0006 sub-modules, used for connecting to remote panels and Quartz routers.
75Ω video cable.
500m (1600ft) max. length.

Setup/Maintenance RS232/422 selectable, wired to Quartz standard.

Modem RS232 wired to PC D9 standard. (can be used as a serial port)

Serial 2 as standard, option for 3 more ports.
RS232/422 selectable.

Network Ethernet 10BaseT, TCP/IP protocol, RJ45

ENG Special engineering connection for Quartz use, can also be used to interface to a fibre-optic converter for long haul connections.

Alarm Relay contact pairs from processors and power supplies.

Time code LTC and VITC supported.

POWER

Supply 90-264V, 50/60Hz
Power Consumption:
single processor 30 Watts
dual processor 60 Watts

PHYSICAL

Height 2U, 88mm (3.5" nom.)
Width 19" rack mount
Depth 485mm (19" nom.)
Weight 9kg
Operating temperature 0-40°C
Ventilation Fan cooled, air drawn from front Exhaust at rear and sides

ORDERING INFORMATION

Each System Controller ships with a single processor and power supply as standard.

Part Number	Description
SC-1000-S	System Controller, single processor and single power supply
SC-1000-D	System Controller, redundant processor and single power supply

OPTIONS

PS-0014	Redundant power supply
SC-1000-FU	A-FU-0010-0000 Main Processor module for system controller, used to upgrade a single processor unit to dual processor or to hold as a spare.
SC-1000-QL	CI-0006 Sub-module that plugs inside the SC-1000 to enable three additional Q-Link and one RS232/422 port. Up to 3 modules may be fitted to provide up to 9 extra Q-Links and up to 3 extra serial ports.
SC-1000-TC	Time code sub-module which fits inside the SC-1000.
AK-0002	Rear frame support kit, strongly recommended in mobile applications.

control system

Quartz

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