Extron Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

SYSTEM 5*cr* PLUS - SYSTEM SWITCHER

Universal projector control

Room control

IR learning capabilities

Five inputs, one output

Live level audio output

24 watt audio amplifier

250 MHz (-3dB) video bandwidth

Remote control options

Multiple mounting options

SERVICE 3 SUPPORT SOLUTIONS

APPLICATIONS

Extron's **System 5*cr* Plus** is a five input, one output A/V switcher that combines the most popular features of the System 5*cr* with these newly added, flexible features: easier to use IR learning, the option to separately set line-out audio output at a fixed level, and one input conveniently configurable for composite video, S-video, or RGBHV. The System 5*cr* Plus provides an all-in-one, inexpensive solution for projector & room control of smaller-scale A/V installations such as conference rooms or boardrooms. Designed for use with LCD, DLP, or plasma displays, the System 5*cr* Plus learns and manipulates IR signals from the display-supplied remote control. This enables switching of computer-video, S-video, and composite video signals to that display. The System 5*cr* Plus offers room control capability so room lighting, screen settings, and other device functions may be controlled through the System 5*cr* Plus's room function via an internal relay. By providing projector control, room control, universal compatibility with displays, and system audio capabilities, the System 5*cr* Plus performs functions that would typically require up to four different products in one integrated solution.

The System 5*cr* Plus provides a total of five inputs—two for RGBHV, two for composite or S-video, and one that is configurable for composite video, S-video, or RGBHV. One of the RGBHV inputs, a 15-pin HD connector, is located on the front panel for easy access. This makes it convenient to connect a laptop or computer directly—no need to access the back of the switcher.

The System 5*cr* Plus provides user-friendly IR learning capabilities. Using the IR receiver, it is able to learn remote control functions, so the switcher may be quickly and easily configured for the specific display being used.

There are two ways to output audio from the System 5*cr* Plus. Line-out audio may be output on a 3.5 mm captive screw connector, or amplified audio may be output on spring-loaded connectors. The System 5*cr* Plus's internal, 24 watt (12 watts per channel @ 4 ohm load) audio amplifier produces amplified audio output for use of non-powered speakers. This is a useful advantage over using powered speakers which typically requires the installation of a power outlet by an electrician, adding considerably to installation costs. The System 5*cr* Plus offers a configuration mode for selecting audio control methods. Line-out audio output may be separately set at a fixed level or simultaneously adjusted with the power amp output.

SCP 100P CONTROL PAD

APPLICATIONS (Cont.)

System switcher control is provided via front panel operation, included IR 40 remote control, or optional SCP 100P hardwired control pad. The front panel buttons control video and audio input settings; display functions such as power, mute, video modes; and room controls, such as lowering or raising a display screen or powering lights on or off. The IR 40 or SCP 100P duplicates the front panel functions. Two auxiliary ports are provided for connection of SCP 100P control pads. A SCP 100P may be mounted in a wall, podium, or table and is available in grey, black, or white to blend into the room's environment.

FEATURES

- **Universal projector control –** The System 5*cr* Plus provides universal projector control, via IR learning capabilities, which allow it to operate with any IR-controllable display. Extron also offers downloadable, pre-configured drivers for various projectors, such as Barco, EIKI, Christie Digital, Epson, JVC, InFocus, Mitsubishi, NEC, Panasonic, Pioneer, Plus, Proxima, Sanyo, Sharp, Sony, and Toshiba. Visit www.extron.com for a current list of available drivers.

- **Room control –** Room lighting, screen settings, and other device functions may be controlled through the System 5*cr* Plus's room function, via an internal relay. The relays may be controlled through the front panel, IR 40 remote, or SCP 100P control pad.

- **Remote IR learning capabilities –** The System 5*cr* Plus learns and manipulates IR remote control signals via the IR receiver. The IR receiver is a built-in, bi-directional device capable of learning new functions and quickly configuring inputs.

- **Audio –** Equipped with both a line-out audio output for each of the five audio inputs and an amplified 24 watt (12 watt per channel @ 4 ohm load) output. Line-out audio output and power amp output may be adjusted together, or the line-out audio may be separately set at a fixed level.

- **Five inputs/one output –** Two computer inputs that accept RGBHV (one on the front panel for easy access), two video inputs that accept composite video or S-video, and one that is configurable for composite video, S-video, or RGBHV.

- **Bandwidth –** 250 MHz (-3dB) video bandwidth maintains signal integrity.

- **Rack-mountable –** Housed in a 1U high, one rack width enclosure. Mounting brackets included for mounting in a rack or under a table.

SPECIFICATIONS

Video input

Number/signal type ..... 2 RGBHV/RGBS/RGsB computer video
1 RGBHV/RGBS/RGsB computer video or S-video or composite video
2 S-video or composite video

Connectors ..... 1 15-pin HD female (RGB computer video)
2 x 5 BNC female (RGB computer video; RGB/S-video/composite video)
2 x 2 BNC female (S-video or composite video)

Nominal level(s) ..... Analog — 0.3V to 1.45V p-p

Minimum/maximum level(s) .. Analog — to 2V p-p

Impedance ..... 75 ohms

Horizontal frequency ..... 15 kHz to 150 kHz

Vertical frequency..... 30 Hz to 150 Hz

Return loss ..... -45dB @ 5 MHz

Maximum DC offset 1.5V

Video throughput

Gain ..... Unity

Bandwidth ..... 250 MHz (-3dB)

Frequency response ..... < ± 0.1dB @ 30 MHz

Differential phase error ..... 0.01°, 0 to 10 MHz

Differential gain error ..... 0.01%, 0 to 10 MHz

Crosstalk ..... -50dB @ 5 MHz

Video output

Number/signal type ..... 1 RGBHV/RGBS/RGsB, or 1 S-video, or 1 composite video

Connectors ..... 1 x 5 BNC female (RGB computer video)
1 x 2 BNC female (S-video)
1 x 1 BNC female (composite video)

Nominal level ..... 1V p-p

Impedance ..... 75 ohms

Return loss ..... -38dB @ 5 MHz

DC offset ..... ±5mV maximum

Switching type ..... Triple action

Sync

Input type ..... RGBHV, RGBS, RGsB

Output type ..... RGBHV, RGBS, RGsB

Standards ..... TTL (RGB), NTSC and PAL (S-video and composite video)

Input level ..... 0.5V to 5V p-p

Output level ..... 0.5V to 5V p-p

Input impedance ..... 75 ohms

Output impedance ..... 75 ohms

Max input voltage ..... 5V p-p

Max. propagation delay ..... 20 nS

Polarity..... Positive or negative (follows input)

Audio input

Number/signal type ..... 5 stereo, balanced/unbalanced

Connectors ..... 1 3.5 mm mini stereo jack (PC 1)
4 3.5 mm captive screw terminal, 5 pole

Impedance ..... 25 kohms, balanced;
50 kohms, unbalanced

Minimum level..... -10dBu for full power out

Maximum level ..... +20dBu, (balanced or unbalanced) @ stated %THD+N

Input gain adjustment ..... to +6.5dB, adjustable per input

Audio throughput

Gain ..... -78dB to +40dB

Frequency response ..... ±0.05dB @ 20 Hz to 20 kHz

THD + Noise ..... < 0.1% @ 1 kHz at rated maximum output drive

S/N ..... > 95dB, 21dBu output

Adjacent input crosstalk ..... > 80dB @ 1 kHz

Stereo channel separation ..... > 90dB @ 1 kHz

CMRR ..... > 75dB @ 20 Hz to 20 kHz

Audio output — line out

Number/signal type ..... 1 stereo, balanced/unbalanced

Connectors ..... 1 3.5 mm captive screw terminal, 5 pole

Nominal output level ..... +18dBu, unbalanced

Maximum output level..... +28dBu, unbalanced

Impedance ..... 50 ohms, unbalanced;
100 ohms, balanced

Drive (Hi-Z) ..... > +21dBu, balanced or unbalanced at stated %THD+N

Drive (600 ohm) ..... > +15dBm, balanced or unbalanced at stated %THD+N

Audio output — power amp

Number/signal type ..... 1 stereo, balanced/unbalanced

Connectors ..... 2 spring-loaded captive terminals, L/R, +/-

Protection..... Thermal, short circuit, open circuit, overload

Drive (full power out) ..... At less than 0.5% THD from 20-20kHz:
24 watts; 12 watts per channel @ 4 ohm load
12 watts; 6 watts per channel @ 8 ohm load

Control/remote — switcher

Serial control port ..... RS-232, 9-pin female D connector

Baud rate and protocol ..... 9600, 8-bit, 1 stop bit, no parity

Serial control pin configurations..... 2 = TX, 3 = RX, 5 = GND

Extron remote key pad control .. 2 3.5 mm captive screw connectors, 5-pole (Aux ports)

IR controller module ..... 30 kHz to 60 kHz input frequency compatibility

Program control ..... Extron's control program for Windows
Extron's Simple Instruction Set™ – SIS™

SPECIFICATIONS (Cont.)

Control — room relay

Number/type	1 momentary or latching
Connectors	1 3.5 mm captive screw connector, 5 pole
Contact rating	25V, 1 A

Control — projector

Projector control port	1 3.5 mm captive screw connector, 5 pole

General

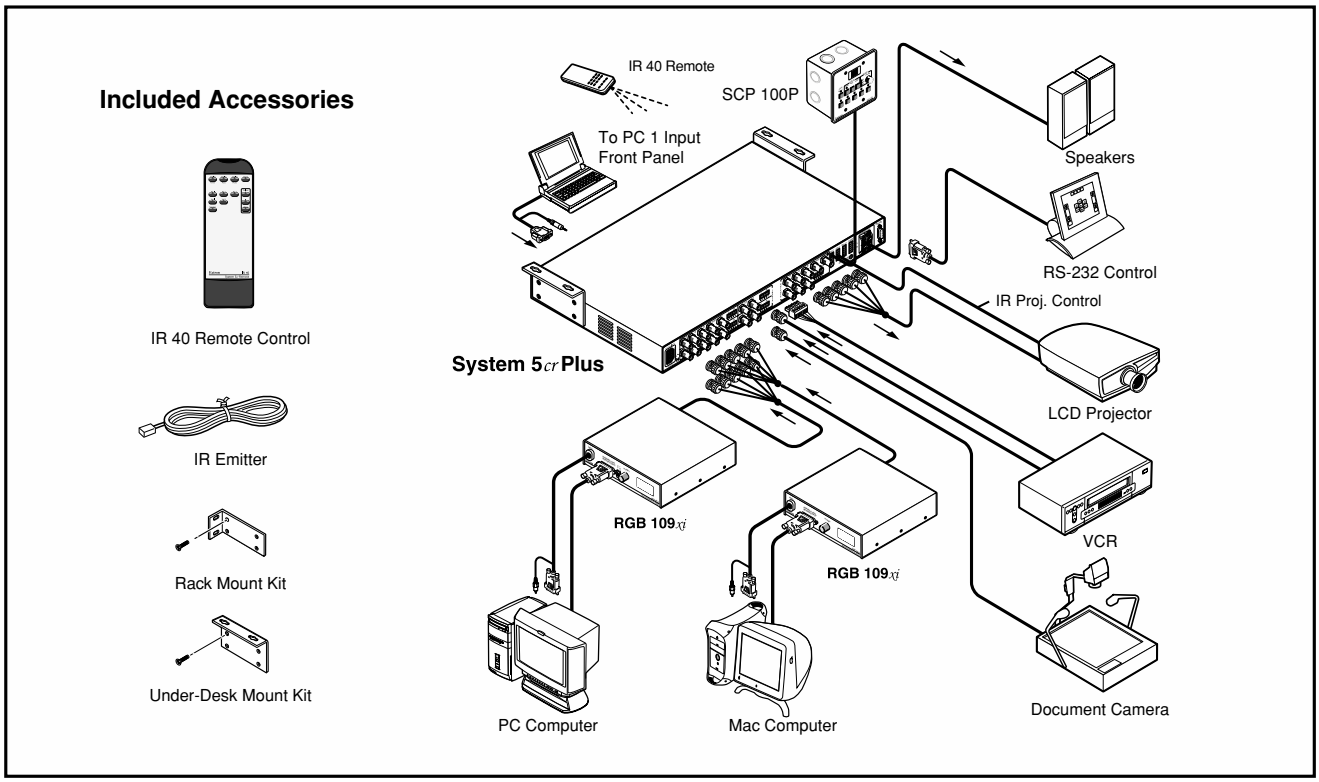
Power	100VAC to 240VAC, 50/60 Hz, 70 watts, internal, auto-switchable
Temperature/humidity	Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing Operating +32° to +122°F (0° to +50°C) / 10% to 90%, non-condensing
Rack mount	Yes, with included brackets
Enclosure type	Metal
Enclosure dimensions	1.75" H x 17" W x 10" D 4.45 cm H x 43.2 cm W x 25.4 cm D
Shipping weight	10 lbs (4.5 kg)
Vibration	NSTA 1A in carton (National Safe Transit Association)
Approvals	UL, CUL, CE
MTBF	30,000 hours
Warranty	2 years parts and labor

Part number 60-269-02

OPTIONAL ACCESSORIES

IR 40 remote control	70-064-02
SCP 100P control pad, grey	60-331-01
SCP 100P control pad, black	60-331-02
SCP 100P control pad, white	60-331-03
Display power sensor	60-207-01
IR broadcaster	60-272-02

APPLICATION DIAGRAM



EXTRON ELECTRONICS/RGB SYSTEMS, INC.
1230 South Lewis Street, Anaheim, CA 92805
800.633.9876 714.491.1500 FAX 714.491.1517
U.S.A.

EXTRON ELECTRONICS, EUROPE
Beeldschermweg 6C, 3821 AH Amersfoort
+31.33.453.4040 FAX +31.33.453.4050
The Netherlands

EXTRON ELECTRONICS, ASIA
135 Joo Seng Rd. #04-01, PM Industrial Bldg.
+65.383.4400 FAX +65.383.4664
Singapore

EXTRON ELECTRONICS INFORMATION
EXTRONWEB™: www.extron.com
EXTRONFAX™: 714.491.0192
24-hour access—worldwide!

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