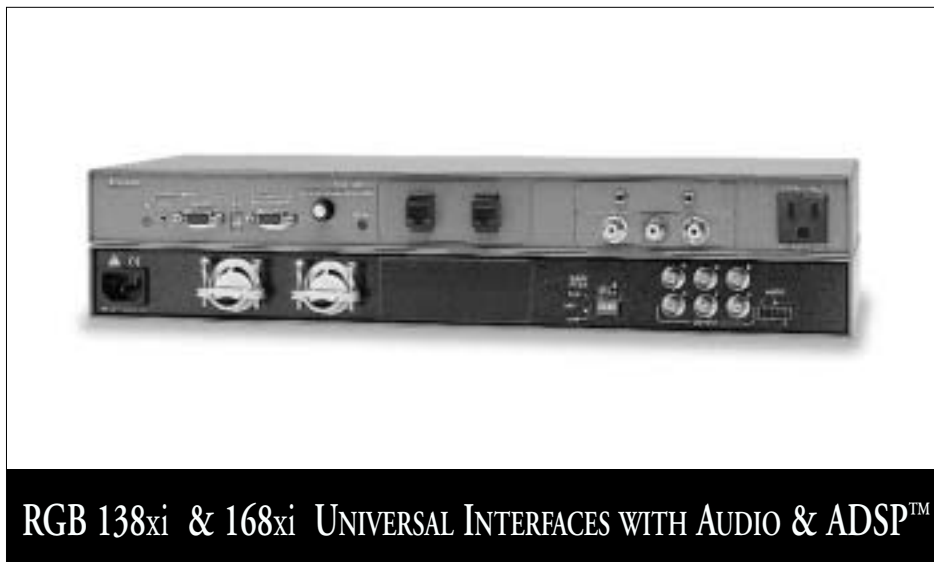


Extron Electronics

INTERFACING, SWITCHING AND DISTRIBUTION



300 MHz (-3dB) video bandwidth

ADSP™ - Advanced Digital Sync Processing

15-150 kHz compatibility

Unswitched AC outlet

Active audio interfacing

Level/Peaking

Optional architectural adapter plates

Simultaneous RGBS/HV output

RGsB output

Horizontal & vertical centering

Optional mounting kits

Rack mountable

Internal power supply

Female 15-pin HD input (RGB 168xi)

Buffered 15-pin local monitor output (RGB 168xi)



DESCRIPTION



RGB 138xi

The RGB 138xi and RGB 168xi are universal, analog computer-video interfaces with 15-130 kHz scanning ranges and 300 MHz (-3dB) of RGB video bandwidth. Both are compatible with nearly all computers and display signals including VGA, SVGA, XGA, SXGA, UXGA, MAC, Sun, and SGI. These interfaces output simultaneous composite and separate horizontal/vertical sync through six BNC connectors. Sync processing is accomplished through Extron's Advanced Digital Sync Processing (ADSP™) technology. ADSP provides all-digital processing of sync signals, eliminating incompatibility issues encountered when using analog sync processing with digital display devices (DLP, LCD, plasma, etc.). Also available for the RGB 138xi and RGB 168xi are optional Architectural Adapter Plates (AAP), which affix to the front panel of the interface. These are available with many of the connector types used in A/V applications and allow for clean, professional-looking installations. The RGB 168xi also provides a 15-pin HD input and buffered local monitor output.

Optional, detachable mounting kits give these interfaces remarkable flexibility. The under-desk mounting kit allows each interface to be mounted under any flat surface, such as a desk, podium, table, cabinet, wall, etc. The rack mount/through-desk mounting kit makes inputs and centering controls easily accessible, while the power and output cables remain hidden away behind the rack or the mounting surface. The RGB 138xi and RGB 168xi also provide an unswitched AC outlet, internal power supply, and audio interfacing. Unbalanced, computer-generated audio is buffered and converted to line-level balanced audio.

FEATURES

- **High performance compatibility** – Provide a 15-130 kHz horizontal frequency range and 300 MHz of RGB video bandwidth.

FEATURES (Cont.)

- **Built-in Advanced Digital Sync Processing (ADSP)** – All-digital process ensures flawless operation with any LCD, DLP, plasma, or other digital display device.
- **Optional Architectural Adapter Plates (AAP)** – Two double-size AAPs for signal pass-through connectors.
- **Two optional mounting kits** – Allow for installation under flat surfaces, as well as through them.
- **Unswitched AC outlet** – Lets users power a laptop or other peripheral.
- **Image centering** – Allows the input signal to be shifted on the presentation device for a properly centered image.
- **Level/Peaking** – Three level/peaking modes are available to compensate for fuzzy images and streaking associated with cable resistance and system bandwidth losses.
- **Balanced audio conversion** – Unbalanced computer-generated audio is input via a 3.5 mm mini jack and output as buffered, balanced line-level audio.
- **Simultaneous composite and separate sync output** – Six BNC connectors allow for composite and separate horizontal and vertical sync without switches or other configuration. Sync on green is also available.
- **Buffered MBC support** – A nine volt power socket is available from the front panel of the RGB 138xi for use with Extron buffered monitor breakout cables.
- **Termination** – The RGB 138xi provides 75 ohm termination for use with laptops and non-terminated monitor breakout cables. The RGB 168xi provides termination for pins 4 and 11 of its 15-pin HD input, ensuring computers which require local monitors to operate will do so.
- **LED indicators** – A two-color LED indicates power and video signal detection, while a second red LED indicates minimum/maximum image shift.
- **Internal power supply** – The RGB 138xi and RGB 168xi each have an internal, auto-switchable 100-240 VAC 50/60 Hz power supply.

SPECIFICATIONS

Video

Gain Unity, (0.725V p-p) 50% peaking,
(0.75V p-p) 100% peaking
Bandwidth 300 MHz (-3dB)

Video input

Number/signal type 1 analog RGBHV, RGBS, RGsB,
RsGsBs
Connectors
RGB 138xi 1 9-pin D male, MBC/LBC cable or
buffer
RGB 168xi 1 15-pin HD female
Min/Max levels Analog—0.3V to 1.5V p-p with no
offset at unity gain
Impedance 75 ohms or Hi Z, switchable (The
default is Hi Z.)
Horizontal frequency ... Autoscans 15 kHz to 130 kHz
Vertical frequency Autoscans 30 Hz to 120 Hz
Return loss -30dB @ 5 MHz
Maximum DC offset 4.0V

Video output

Number/signal type 1 analog RGBHV, RGBS, RGsB
Connectors
RGB 138xi 6 BNC female
RGB 168xi 6 BNC female
1 15-pin HD female local monitor
output (buffered)
Min/Max levels Analog—0.7V to 0.75V p-p with
0.70V p-p input
Impedance 75 ohms
Return loss -30dB @ 5 MHz

Sync

Input type RGBHV TTL (\pm), RGBS TTL (\pm),
RGsB 0.3V (-), RsGsBs 1.3V (-)
Output type..... RGBHV (\pm), RGBS(\pm), RGsB (-)
Input level 2V to 5.5V p-p with \pm 0.2VDC
offset (max.)
Output level 4V to 5V p-p
Input impedance 10 kohms
Output impedance..... 75 ohms
Max. propagation delay .. 48 nS
Max. rise/fall time 3.5 nS
Polarity RGBHV: when RGBHV is input,
polarity follows input; otherwise
negative
RGBS, RGsB: negative

Audio

Gain..... Unbalanced 0dB, balanced +6dB
Frequency response 20 Hz to 20 kHz, \pm 0.05dB

THD + Noise 0.03% @ 1 kHz, 0.3% @ 20 kHz at
rated maximum output drive
S/N >90dB at rated maximum output
(14dBu), balanced

Stereo channel
separation >95dB @ 1 kHz to 20 kHz

Audio input

Number/signal type 1 PC level stereo, unbalanced
Connectors 1 3.5 mm stereo jack, 2 channel;
tip (L), ring (R), sleeve (ground)
Impedance >10 kohms, DC coupled
Maximum level +8.5dBu, (unbalanced) @ stated
%THD+N

Audio output

Number/signal type 1 stereo (2 channel), balanced/
unbalanced
Connectors 3.5 mm stereo captive screw
connector, 5 pole, for left and right
output
Impedance 50 ohms unbalanced, 100 ohms
balanced
Gain error \pm 0.1dB channel to channel
Max. level (600 ohm) +14dBm, balanced at stated
%THD+N

General

Power..... 100VAC to 240VAC, 50/60 Hz,
15 watts, internal, auto-switchable
MBC power jack 9.0VDC, 150 mA
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 kit #70-077-03
Furniture mount..... Yes, with optional kit #70-077-01
(under desk) or included kit
#70-077-03 (through desk/rack mount)
Enclosure type Metal
Enclosure dimensions .. 1.75" H x 17.5" W x 6" D
4.5 cm H x 44.5 cm W x 15.2 cm D
(Depth excludes connectors and
knobs. Width excludes rack ears.)
Shipping weight..... 7 lbs (3.2 kg)
Vibration ISTA/NSTA 1A in carton
(International Safe Transit
Association)
Approvals..... UL, CE, FCC Class A
Warranty 2 years parts and labor

ACCESSORIES

- RGB 138xi 60-292-01
- RGB 168xi 60-379-01

Interface mounting kits:

- Under desk mounting kit 70-077-01
- Through desk mounting kit 70-077-03

Monitor breakout cables: RGB 138xi

- MBC VGA/XGA HR 26-162-01
- MBC Mac Quadra 26-018-01
- MBC SUN Sparc HR 26-424-01
- MBC SGI/13W3 HR 26-425-01

Laptop breakout cables: RGB 138xi

Laptop breakout cables are available in 3', 6' and 12' lengths, with or without audio. Contact Extron for the specific cable for your application.

- LBC 90 VGA HR 3'A 26-502-01
- LBC 90 VGA HR 6'A 26-502-02
- LBC 90 VGA HR 12'A 26-502-03
- LBC VGA HR 6' 26-224-01
- LBC VGA HR 6' A 26-441-02
- LBC Mac HR 6' 26-363-01
- LBC SUN HR 6' (61 kHz) 26-413-01
- LBC SUN HR 6' (71 kHz) 26-413-02
- LBC SUN HR 6' (81 kHz) 26-413-03

Signal input cable kits for RGB 168xi :

- VGA M6' MHR 26-238-01
- VGAM 3' MHRA 26-490-01
- VGAM 6' MHRA 26-490-02
- VGAM 12' MHRA 26-490-03
- VGAM 90 HRA 6' 26-510-02
- Mac 15-pin HD F Adapter kit with Audio 70-156-01
- 13W3 15-pin HD F Adapter kit with Audio .. 70-157-01

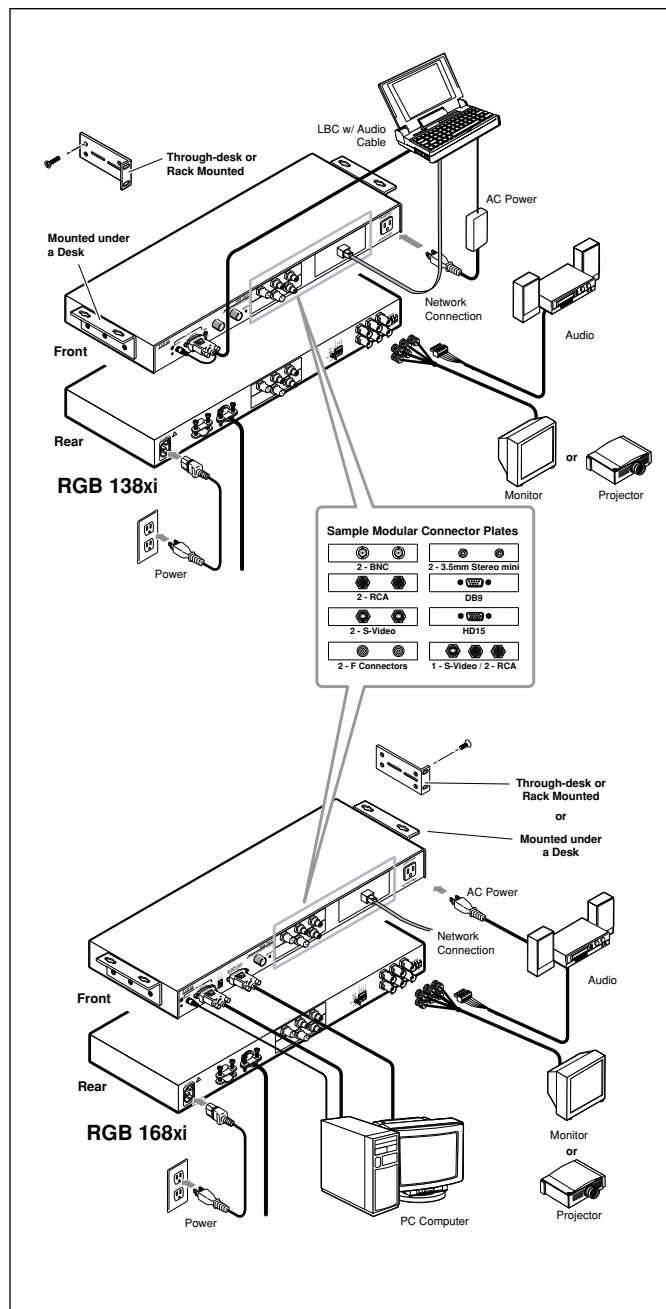
Architectural Adapter Plates:

A wide variety of cable pass-through Architectural Adapter Plates are available. Contact Extron for a complete list of these plates.

- Single blank 70-090-01
- Double blank 70-090-02
- 2 BNC pass-through 70-091-01
- 3 BNC pass-through 70-091-02
- 5 BNC pass-through 70-091-03
- 2 RCA pass-through 70-093-01
- 3 RCA pass-through 70-093-02
- 2 S-video female to female 70-095-01
- 2 RJ 45 pass-through 70-100-01
- 1 3-pin XLR connector 70-103-01
- 1 S-video and 3 RCA pass 70-107-04

And many more.

APPLICATION DIAGRAM



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