Crestron wideband matrix switches are designed to provide flexible signal routing of high-res video and audio for the most demanding presentation environments. With extremely low crosstalk, 450MHz video bandwidth, professional balanced audio, and full Crestron control system integration, the CEN-RGBHV16X16 satisfies the demanding video requirements of corporate boardrooms and training centers, university lecture halls, high-tech houses of worship, command and control facilities, and live staging events.

**High-Bandwidth Matrix Router**
The CEN-RGBHV16X16 is a high-bandwidth matrix switcher capable of routing up to 16 computer or video sources to up to 16 display devices. Its five matrix levels accommodate any combination of analog RGBHV, HD/component, S-Video and composite signals. Proven flat response achieves optimum performance even at the highest bandwidth. Selectable sync impedance on every input helps accommodate varying cable lengths.

**Glitch-free Switching**
Video-follow-sync switching ensures a glitch-free transition when selecting between non-synchronous sources. Blanking time is independently adjustable per output from 0 to 10 seconds, allowing each display device time to lock to the new sync signal before displaying the video image whenever a new source is selected. A sync reference input is also provided to support vertical interval switching of genlocked sources.

**Sync Detection**
Video sync detection on each input measures the H and V sync rates of every RGB source and allows their values to be viewed on the front panel display, control system touchpanel, or RoomView® software.

**Professional Stereo Audio Matrix**
A 16 x 16 stereo audio matrix is also included, supporting both balanced and unbalanced signals. Programmable input level compensation helps ensure compatibility with a wide range of pro and semi-pro sources. Automatic blanking achieves a pop-free transition when switching between sources. Every output includes volume and mute control, providing multiple channels of real-time controllable audio signal distribution to feed multi-zone amplifiers, assistive listening, and recording equipment. Audio breakaway capability allows any audio input or output to be linked with its respective video channel, or switched independently.

**Full-featured Front Panel**
The CEN-RGBHV16X16 is fully operable out-of-the-box for use as a standalone switcher. Featuring an informative LCD display and quick-adjust knob, the front panel supports essential switcher operation without requiring a computer or control system. Advanced setup is available through Crestron Toolbox™ software. All signal routing and audio compensation settings are stored in non-volatile memory onboard the switcher.

Customizable label strips are provided on the front panel for clear designation of its inputs and outputs using Crestron Engraver software or standard 3/8” tape labels. Names may also be entered through software to appear on the LCD display during operation. For security, the front panel controls can be password protected or locked out.

**Crestron System Integration**
Via Cresnet or high-speed Ethernet, Crestron switchers offer the ultimate in control system integration with every function accessible through SIMPL or SystemBuilder™ without deciphering cryptic protocols. Up to 10 routing presets can be saved onboard the CEN-RGBHV16X16 for instant recall. Integration with any 2-Series Control System also provides the gateway to Crestron’s RoomView® Asset Management Software and e-Control®2 XPanel Solutions for remote monitoring and control.
CEN-RGBHV16X16 16x16 Wideband RGB Matrix Switcher

**SPECIFICATIONS**

**Video/RGB**
- **Switcher:** 16x16(x5) crosspoint matrix, adjustable blanking, sync detection, selectable input termination, vertical interval switching using genlock input
- **Signal Types:** RGB and composite, S-Video, or component video (does not transcode)
- **Video/HDTV Formats:** NTSC or PAL, HDTV up to 1080i/1080p
- **RGB Formats:** RGBHV, RGBs, RGb, or YUV
- **Gain:** 0dB (75 ohms terminated)
- **Bandwidth:** 450MHz (-3dB) fully loaded
- **Blanking Time:** Adjustable 0 to 10 seconds, 0.5 second steps
- **Crossstalk:** &le:-65 dB @ 5 MHz, &le:-47 dB @ 100 MHz

**Audio**
- **Switcher:** 16x16 stereo crosspoint matrix, input compensation, output volume and mute control, adjustable blanking, audio breakaway
- **Input Compensation:** ±10dB in 0.5dB steps
- **Output Volume Control:** -60dB to +20dB in 0.5dB steps
- **Blanking Time:** Adjustable 0 to 10 seconds, 0.5 second steps
- **Frequency Response:** 20Hz to 20kHz ±0.5dB

**Ethernet**
- 10/100BaseT, static IP or DHCP/DNS, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP

**Connectors - Audio**
- **INPUTS 1 - 16:** (16) 5-pin 3.5mm detachable terminal blocks;
- Balanced/unbalanced stereo line-level inputs;
- Maximum Input Level: 4 Vrms balanced, 2 Vrms unbalanced;
- Input Impedance: 0 to 5.0 Vp-p;
- RGB Input Impedance: 75 ohms nominal;
- Sync Input Impedance: 75 or 510 ohms, independently selectable for H and V inputs;
- Output Impedance: 100 ohms balanced, 50 ohms unbalanced

**Connectors - Video/RGB**
- **VID REF IN:** (2) BNC female;
- Genlock sync reference input and loop-thru, unterminated
- **INPUTS 1 - 16:** (16) sets of (5) BNC female, each set comprising (3) high-bandwidth video inputs plus (2) sync inputs;
- Input Level: 0.2 to 5.0 Vp-p;
- RGB Input Impedance: 75 ohms nominal;
- Sync Input Impedance: 75 or 510 ohms, independently selectable for H and V inputs;
- Return Loss: < -30dB @ 5MHz;
- Sync detection on every input connector
- **OUTPUTS 1 - 16:** (16) sets of (5) BNC female, each set comprising (3) high-bandwidth video outputs plus (2) sync outputs;
- Output Level: 0.2 to 5.0 Vp-p;
- Output Impedance: 75 ohms nominal;
- Return Loss: < -30dB @ 5MHz

**Connectors - Control & Power**
- **NET:** (1) 4-pin 3.5mm detachable terminal block;
- Cresnet slave port, connects to Cresnet control network;
- Does not draw power from the network
- **LAN:** (1) 8-wire RJ45 with 2 LED indicators;
- 10/100BaseT Ethernet port;
- Green LED indicates link status;
- Yellow LED indicates Ethernet activity
- **100-240VAC – 2.0A 50/60Hz:** (1) IEC Socket, main power input;
- Mates with removable power cord, included
- **FUSE:** Dual fuse holder, main fuse;
- Hot: 5mm x 20mm, 250V, 2.5A, time-lag;
- Neutral: 5mm x 20mm, 250V, 10A, time-lag

**Controls and Indicators**
- **SOFTKEYS:** (4) pushbuttons for activation of LCD driven functions and passcode entry
- HW-R: (1) recessed miniature pushbutton for hardware reset, reboots the switcher
- CLEAR: (1) pushbutton and red LED, clears all matrix routing
- VIEW: (1) pushbutton and red LED, toggles VIEW mode on/off
- TAKE: (1) pushbutton and red LED, executes routing
- MENU: (1) pushbutton, steps menu back one level
- ENTER: (1) pushbutton, executes highlighted menu or value
- A: (1) pushbutton & red LED, selects audio routing view
- V: (1) pushbutton & red LED, selects video routing view
- SYNC: (1) pushbutton & red LED, displays input sync rates
- Quick-Adjust Knob: (1) continuous turn rotary encoder, adjusts menu parameters
- **IN 1 - 16:** (16) pushbuttons and red LEDs, select input to be routed
- **OUT 1 - 16:** (16) pushbuttons and red LEDs, select output destination
- **INPUT TERMINATORS (rear):** (32) DIP switches, select input termination for each input, independently for H and V Sync

**Power Requirements**
- **Main Power:** 2 Amps @ 100-240 Volts AC, 50/60 Hz
- **Cresnet Power Usage:** none

**Environmental**
- **Temperature:** 32°F to 104°F (0°C to 40°C)
- **Humidity:** 10% to 90% RH (non-condensing)
- **Heat Dissipation:** Unloaded: 100 Watts or 345 BTU/Hr;
- Loaded: 120 Watts or 410 BTU/Hr

**Enclosure**
- **Chassis:** Steel, black matte powder coat finish, vented sides, fan-cooled
- **Faceplate:** Extruded aluminum, black matte powder coat finish with polycarbonate label overlay
- **Mounting:** Freestanding or 6U 19-inch rack-mountable (adhesive feet and rack ears included)

**Dimensions**
- **Height:** 10.47 in (26.60 cm) without feet
- **Width:** 17.28 in (43.90 cm);
- **Depth:** 19.35 in (49.15 cm)

**Weight**
- 40 lb (18.14 kg)