

Extron Quantum Ultra Series Videowall Processors User Manual

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The Extron Quantum Ultra Series, consisting of the Quantum Ultra 610 and 305, the Quantum Ultra II 610 and 305, and the **Quantum Ultra Connect 128 and 84** Videowall Processors, are modular 4K video processors that support ultra-high resolutions up to 2560×1600 and 4096×2160 (4K) @ 60 Hz on inputs and outputs. All models provide customizable output resolutions, input and output image rotation, and mullion compensation. USB, RS-232, and Ethernet interfaces also provide direct connections for control systems.

- The Quantum Ultra 610 has a 6U, 10-slot card frame, or chassis, while the Quantum Ultra 305 has a 3U chassis with five card slots. These models support multiple videowalls with mixed resolutions and screen orientations. They also support edge blend compensation, window border styles, and a variety of source types including picture, RSS, Text, Clock, and VNC. The optional IN SMD 100 input card decodes and displays multiple simultaneous MPEG2, Motion JPEG, and H.264 video streams at up to 60 frames per second. Each input card contains four HDMI or two LAN connectors. The output cards contain either four HDMI or four DTP connectors. Both chassis support any combination of input and output cards. Additional inputs and outputs can be added to a system with use of one or more additional chassis.
- The Quantum Ultra II 610 and Quantum Ultra II 305 have the same features as their respective Quantum Ultra 610 and Quantum Ultra 305 counterparts, described above. In addition, these models support the IN4HDMI 4K PLUS input and OUT4HDMI 4K PLUS output cards, which provide 4K @ 60 Hz capability on each of the four HDMI connectors.
- The **Quantum Ultra Connect 128 and 84** have fixed configurations. The **Quantum Ultra Connect 84** has two HDMI input cards and one HDMI output card, while the **Quantum Ultra Connect 128** has three HDMI input cards and two HDMI output cards. These card configurations cannot be modified by the user.

NOTE: The **Expansion In and Expansion Out cards** provide another option for the Quantum Ultra 610 and 305, and Quantum Ultra II 610 and 305 (Quantum Ultra Connect models do not support expansion cards. These input and output cards enable up to five Quantum Ultra chassis to be connected together and managed from one primary chassis. Using the expansion cards, a Quantum Ultra system can be expanded to up to 42 input and output cards (see the Quantum Ultra Expansion System Setup Guide, provided with the expansion system, for information on setting up these models).

Control methods for all models include Extron Videowall Configuration Software (VCS), available on the Extron website, which provides a means of configuring videowall displays and saving window presets. Control is also available via Simple Instruction Set™ (SIS) or the Express Mobile Software (EMS) for Quantum Ultra on an iOS, Android, or Microsoft tablet device.

This setup guide provides step-by-step instructions for an experienced user to set up and configure a Quantum Ultra Series device. In this guide, the terms “Quantum Ultra Series,” “Quantum Ultra Series device,” “unit,” and “processor” are used interchangeably to refer to all models in the series.

Contents

1 Installation Steps

2 Documents / Resources

2.1 References

3 Related Posts

Installation Steps

WARNING: To avoid electric shock or product damage due to condensation, always let the Quantum Ultra become acclimated to ambient temperature and humidity for at least 30 minutes before switching it on. This is very important when you are moving the unit from a cold to a warm location.

ATTENTION:

- All structural steps and electrical installation must be performed by qualified personnel in accordance with local and national building codes and electrical codes.
1. Disconnect power from all equipment.
 2. (Optional) Mount the unit to a rack using the supplied screws (see the Image at right).
 3. Connect the video inputs and outputs. Connect HDMI sources to connectors on the installed HDMI input cards. If IN SMD 100 input cards are installed (Quantum Ultra and Quantum Ultra II only), connect the LAN connectors on the cards to a network for streaming sources. Connect DTP receivers (Quantum Ultra and Quantum Ultra II only) or HDMI displays to connectors on the output cards. Secure each HDMI device cable to the connector with a provided Lockit HDMI Cable Lacing Bracket.
 4. **Connect a control device** For remote control, connect a control device or a computer to:
 - The RJ-45 LAN A to enable configuration of the Quantum Ultra Series device via SIS commands, VCS, or EMS
 - (Optional) The USB mini B Config connector to enable configuration and control via SIS commands or VCS
 - (Optional) The 3-pole captive screw RS-232 connector to enable serial control via SIS commands
 5. **Connect power** to the Quantum Ultra or Ultra II primary and redundant (optional) IEC connectors.
 6. **Power on the unit and all connected devices.**
 7. **Download and install VCS on your computer.**
 8. **Configure sources, displays, EDID, and presets** for your videowall using VCS (see Configuring the Videowall Using VCS on page 4).

NOTE: Figure 1 shows the rear panel of a Quantum Ultra 610. The Quantum Ultra II 610 rear panel is identical except for IEC C20 AC connectors and the product name in the upper-left corner. The Quantum Ultra 305, Ultra Connect 84, and Ultra Connect 128 have similar rear panels except they are 3U high, have five card slots, and have no redundant power connector.



[Extron Quantum Ultra Series Videowall Processors](#) [pdf] User Manual
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References

- [User Manual](#)