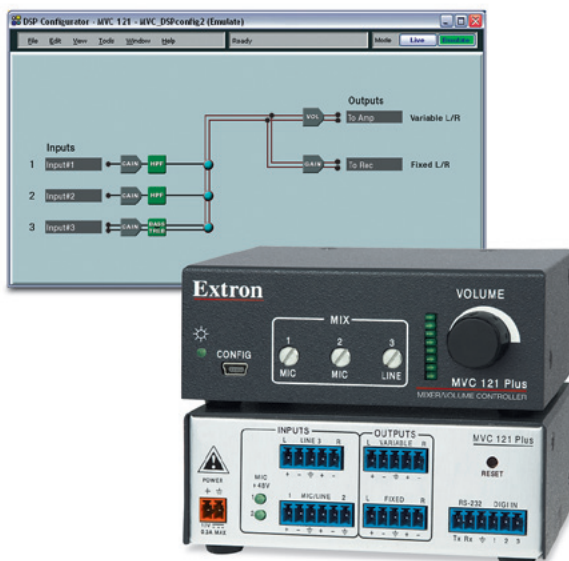


MVC 121 Plus

THREE INPUT STEREO MIXER
WITH DSP

- ▶ **Mixes two microphone inputs and a stereo line input to two stereo outputs**
- ▶ **DSP audio signal processing**
 - Fixed, low latency DSP processing
- ▶ **Audio DSP tools:**
 - Bass and treble shelving filters
 - High pass filters
 - Low pass filters
- ▶ **24-bit/48 kHz analog-to-digital and digital-to-analog converters**
- ▶ **DSP Configurator™ Software for fast configuration**
- ▶ **Live and Emulate operation modes**
- ▶ **Intuitive Graphical User Environment**
- ▶ **48 volt phantom power for condenser microphones**
- ▶ **Fixed and variable stereo line level outputs**
- ▶ **Front panel mix level adjustments for each input plus master volume**
- ▶ **Three digital input ports for remote muting**



The Extron MVC 121 Plus is a compact, three input stereo audio mixer with a digital signal processing platform for audio signal mixing and control. It mixes a stereo line level and two mic or mono line level signals, and provides fixed and variable stereo line level outputs. The built-in audio DSP tools facilitate source signal optimization with quick and easy configuration using the DSP Configurator software. The MVC 121 Plus is ideal for adding microphone capability to a sound system.



Extron® Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The Extron **MVC 121 Plus** is a compact, three input stereo audio mixer featuring a digital signal processing platform for audio signal mixing and control. The MVC 121 Plus features a stereo line level input and two mic/line level inputs with 48 volt phantom power for condenser microphones, plus fixed and variable stereo line level outputs. It offers gain, filter, and tone processing with quick and intuitive configuration using the DSP Configurator™ Software, allowing the MVC 121 Plus to be installed in very little time. The MVC 121 Plus is ideal for presentation applications that require line and microphone audio mixing with DSP in a small form factor.

DSP

The DSP built into the MVC 121 Plus provides wide dynamic range and utilizes 24-bit audio converters with 48 kHz sampling to maintain audio signal transparency. Convenient, easy-to-configure tools are available to control level, high and low pass filters, and bass and treble shelving filters.

Easy-to-Use DSP Configurator Software

The DSP Configurator Software features an intuitive on-screen layout that offers fast access to digital audio signal processing tools as well as audio mixing. Designers can quickly get a snapshot view of the entire audio system including processing blocks and mixing points.

Flexible Mixer

The MVC 121 Plus features a stereo line level input and two mic/line level inputs, each of which are mixed into the fixed and variable stereo line level outputs. It provides a quick and effective solution for adding microphone capability to an existing system. The variable line level output can be sent to a PA system, while the fixed line level output can be routed to an Assisted Listening System.

Versatile Control Options

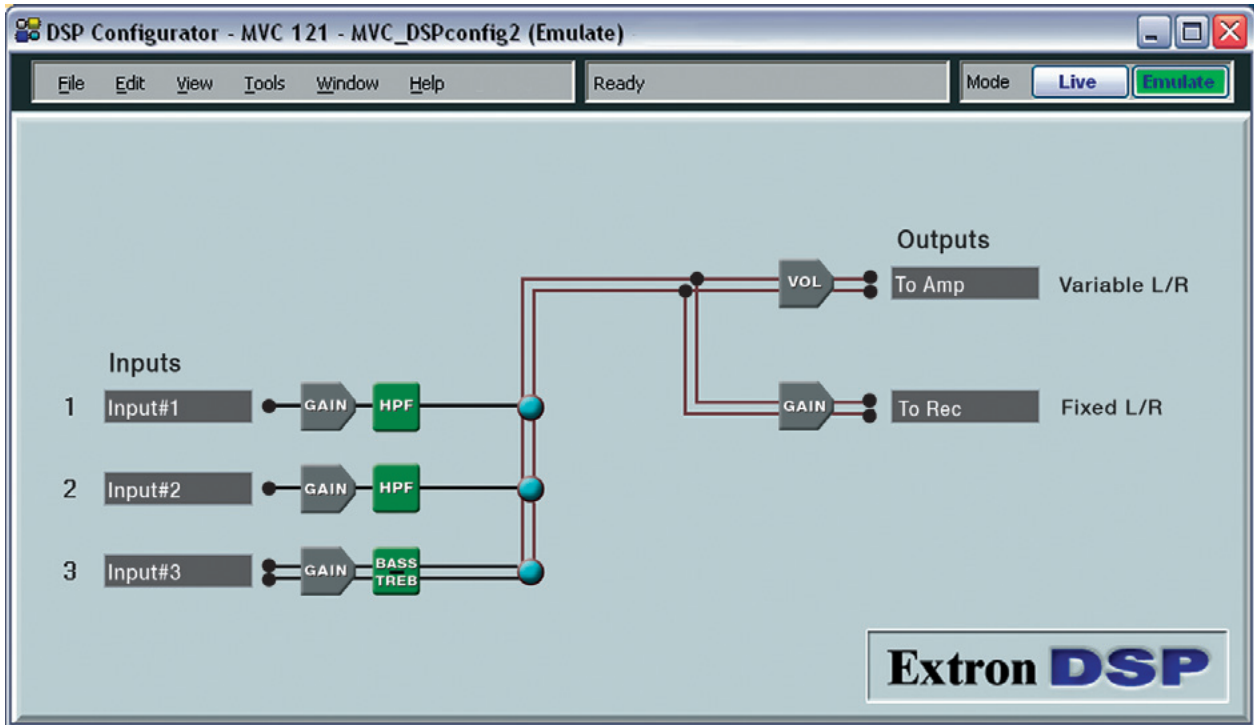
The MVC 121 Plus can conveniently be controlled and configured via RS-232 serial control or USB. It also includes digital input ports which allow for muting.

FEATURES

- ▶ **Mixes two microphone inputs and a stereo line input to two stereo outputs** – Two mono microphone or line level inputs are mixed with a stereo line level input to dual stereo line level outputs for fixed and variable audio applications.
- ▶ **DSP audio signal processing** – The MVC 121 Plus provides gain, filter, and tone processing for quick and easy configuration that provides unprecedented signal quality in a compact mixer.
- ▶ **24-bit/48 kHz analog-to-digital and digital-to-analog converters** – High performance converters preserve audio signal integrity in input and output signal conversion, while maintaining latency under 1 ms.
- ▶ **Fixed, low latency DSP processing** – Input to output latency within the MVC 121 Plus is fixed regardless of the number of active channels or processes. Fixed, low latency processing keeps audio in sync with video, and prevents distractions to the presenter resulting from delayed live audio.
- ▶ **DSP Configurator™ Software** – A powerful yet user-friendly PC-based software tool for managing all audio operations of the MVC 121 Plus. It enables complete setup and configuration of digital audio processing tools as well as mixing.
- ▶ **Intuitive Graphical User Environment** – The DSP Configurator Software features a Graphical User Environment that offers a clear view of all inputs and outputs, audio processing blocks, and mix points in a single window. This allows a designer or installer to quickly view an audio configuration without having to access multiple windows or menus.
- ▶ **48 volt phantom power for condenser microphones**
- ▶ **Fixed and variable stereo line level outputs**
- ▶ **Front panel mix level adjustments for each input**
- ▶ **Front panel USB configuration port** – Enables easy configuration via the DSP Configurator Software without having to access the processor's rear panel.
- ▶ **Large front panel knob** – Provides direct user access to output volume.
- ▶ **Multi-function LED level indicator** – Automatically displays the input gain or output volume setting for the front panel controls, and also acts as an output level meter.
- ▶ **RS-232 control port** – Using serial commands, the MVC 121 Plus can be integrated into a control system. Extron products use the SIS™ - Simple Instruction Set command protocol, a set of basic ASCII code commands that allow for quick and easy programming.
- ▶ **Three digital input ports for remote mute triggering** – Three digital input ports are provided, so that each input on the MVC 121 Plus can be individually muted by remote trigger.
- ▶ **Live and Emulate operation modes with configuration file saving** – Allows settings to be configured offline, then uploaded to the MVC 121 Plus. The software also downloads configuration files from the processor for archiving.
- ▶ **Soft limits provide optimal adjustment range** – The volume range for the variable output and the three mix points can be limited using soft limits to maintain optimal minimum and maximum levels when using external volume control. This prevents operators from over or under-adjusting levels when using digital I/O or RS-232 control. The DSP Configurator Software provides quick drag-and-drop adjustment of soft limits.
- ▶ **SpeedNav™ keyboard navigation** – SpeedNav enables user-friendly, keyboard-based navigation of the DSP Configurator Software without the need for a mouse or touchpad. Using keyboard navigation keys and shortcuts, the user can access any input or output, mixing points, and all audio DSP tools. Using only the keyboard for software access can help expedite audio system setup and commissioning while on-site using laptop PCs.

FEATURES (Cont.)

DSP CONFIGURATOR - EASY TO USE DSP SOFTWARE FOR FAST SETUP



Intuitive Graphical User Environment - The DSP Configurator Software features a Graphical User Environment that offers a clear view of the inputs and outputs, audio processing blocks, and mix points in a single window. This allows a designer or installer to quickly view the configuration without having to access multiple windows or menus.

DSP TOOLS

The MVC 121 Plus includes essential DSP tools for setting up and fine-tuning audio systems. These tools, or processing blocks, allow for control and management of gain and filtering. The DSP built into the MVC 121 Plus can simplify system designs and save money by eliminating the need for separate DSP equipment. This easy-to-use configuration approach saves time during system tuning.

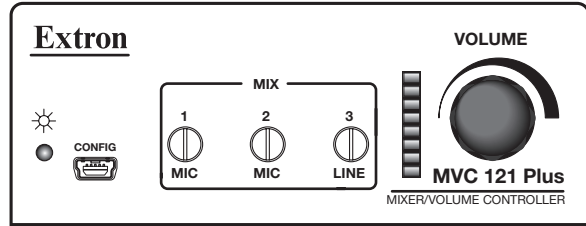
Gain, High Pass / Low Pass, and Bass & Treble blocks are available for each input, while a Volume block is available for the variable output plus a separate Gain block to set the level of the fixed output. Selecting any of these blocks opens a dedicated pop-up window with a range of options and customizable parameters. Multiple windows can be open at the same time. Input and output levels can be monitored at any time by simply opening any of the input or output Gain or Volume windows, or the convenient meter bridge.

Essential DSP Tools

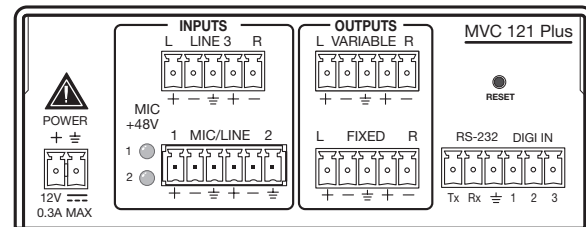
Gain Stages	2 gain stages across input-to-output paths Gain control at mix points
Filters	5 filters per mic/line input 3 filters for line input High pass Low pass Shelving

SPECIFICATIONS

AUDIO	
Gain	Unbalanced output: -6 dB; balanced output: 0 dB
Frequency response	20 Hz to 20 kHz, ±0.3 dB
THD + Noise	<0.02% @ 1 kHz, at maximum output level
S/N	>100 dB, 20 Hz to 20 kHz, at maximum output, unweighted
Crosstalk	<-90 dB @ 1 kHz, fully loaded
CMRR	>60 dB @ 1 kHz
AUDIO INPUT	
Number/signal type	
Microphone inputs	2 mono, mic/line, balanced/unbalanced
Main input	1 stereo, line, balanced/unbalanced
Connectors	
Microphone inputs	(1) 3.5 mm captive screw connector, 6 pole
Main input	(1) 3.5 mm captive screw connector, 5 pole
Impedance	>10k ohms, balanced/unbalanced, DC coupled
Nominal level	+4 dBu when level is set to 0 dB gain; adjustable from -60 dBu to +4 dBu (line input)
Maximum level	+21 dBu, balanced, when input gain is set to 0 dB
Volume range	
Line input	-18 dB to +24 dB, adjustable per input
Mic input	-18 dB to +60 dB, adjustable per input
Mic noise level	<-120 dBV (1 µVrms) at 40 dB gain
Mic phantom power	+48 VDC, which can be switched on or off
NOTE:	0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV = 2 dBu
AUDIO PROCESSING	
D/A conversion	24 bit, 48 kHz sampling
AUDIO OUTPUT	
Number/signal type	4 mono, line, balanced/unbalanced
Connectors	(2) 3.5 mm captive screw connector, 5 pole
Impedance	50 ohms unbalanced, 100 ohms balanced
Gain error	±0.2 dB channel to channel
Maximum level (Hi-Z)	>+21 dBu, balanced; >+15 dBu, unbalanced
CONTROL/REMOTE – MIXER/VOLUME CONTROLLER	
Serial control port	1 bidirectional RS-232: 3.5 mm captive screw connector, 6 pole (uses 3 poles) (shared with digital input)
Baud rate and protocol	9600 to 115200 baud, 38400 baud (default), 8 data bits, 1 stop bit, no parity, no flow control
Serial control pin configuration	1 = Tx, 2 = Rx, 3 = GND
USB control port	1 front panel female mini USB B
USB standards	USB 2.0, low speed
Program control	Extron control/configuration program for Windows® Extron Simple Instruction Set (SIS™)
CONTROL – DIGITAL INPUT PORTS	
Number/type	3 digital input (configurable)
Connector	(1) 3.5 mm captive screw connector, 6 pole (shared with RS-232 port, uses 4 poles)
Digital inputs	
Input voltage range	0-24 VDC
Input impedance	10k ohms
Threshold low to high	>2.0 VDC
Threshold high to low	<0.8 VDC



Front



Back

GENERAL		
Power	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 1 A	
Power consumption	6 watts	
Temperature/humidity	Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, noncondensing Operating +32° to +122°F (0° to +50°C) / 10% to 90%, noncondensing	
Cooling	Convection, no vents	
Mounting		
Rack mount	Yes, with optional 1U rack shelf	
Furniture mount	Yes, with optional mini under-desk mounting kit	
Pole mount	Yes, with mini pole mount kit	
Enclosure type	Metal	
Enclosure dimensions	1.7" H x 4.3" W x 3.0" D (1U high, quarter rack wide) (4.3 cm H x 10.9 cm W x 7.6 cm D) (Depth excludes connectors and knobs.)	
Product weight	0.6 lbs (0.3 kg)	
Shipping weight	3 lbs (2 kg)	
Vibration	ISTA 1A in carton (International Safe Transit Association)	
Regulatory compliance		
Safety	CE, c-UL, UL	
EMI/EMC	CE, C-tick, FCC Class A, ICES, VCCI	
MTBF	30,000 hours	
Warranty	3 years parts and labor	
NOTE:	All nominal levels are at ±10%.	
Model	Version Description	Part number
MVC 121 Plus	Three Input Stereo Mixer with DSP	60-1096-01

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.



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