

MC-4

Digital Controller



- > Eight channels, eight configurable inputs
- > Up to two 5.1-channel analog audio inputs
- > Analog bypass available for stereo and 5.1-channel analog audio inputs
- > S/PDIF coaxial and S/PDIF optical digital audio inputs
- > Automatic switching between analog and digital audio inputs
- > 24-bit/192kHz D/A converters
- > Stereo side and rear outputs and a dedicated subwoofer output
- > Two broadcast-quality video switchers
- > Three component video inputs with full high-definition television compatibility
- > Five S-video and five composite video inputs
- > Four 32-bit, floating-point DSP engines
- > Separate DSP engine to decode Dolby Digital and DTS signals
- > LOGIC 7 decoding
- > Dolby Digital Surround EX and Dolby Pro Logic II decoding
- > DTS 96/24, DTS Neo:6, and DTS-ES (matrix and discrete) decoding
- > THX Ultra2 and THX Surround EX decoding
- > Two trigger outputs
- > Rear panel IR input
- > RS-232 control
- > Optional rack mount kit

Based on the reference MC-12, the MC-4 Digital Controller is perfectly suited for less complex multi-channel systems in which sound quality, picture quality, ease-of-use and reliability are still of paramount importance.

Equipped with eight configurable inputs, and eight channels of output, the MC-4 is ideal for all but the most elaborate systems. Drawing on Lexicon's legendary expertise in digital audio, the MC-4 offers superior performance and value for today's music and home theater enthusiast.

At the heart of the MC-4 are four Analog Devices SHARC digital signal processing engines, one Cirrus Logic DSP engine, and eight 24-bit/192kHz digital-to-analog converters - an architecture that is nearly identical to the MC-12. As a result, the MC-12 and MC-4 share the same tremendous processing power and sonic soul. The MC-4 includes THX Ultra2 certification and DTS 96/24 decoding. Rounding out its impressive list of playback technologies: Dolby Digital EX, Pro-Logic II, DTS-ES, DTS Neo:6, and LOGIC 7.

The MC-4 features Lexicon's decoding technology: LOGIC 7. Based on years of psychoacoustic research, LOGIC 7 strikes a delicate balance between channel separation and surround envelopment. For music, film, and broadcast sources, LOGIC 7 distinguishes between primary and background signals and processes them appropriately. Prominent sounds like a singer's voice or an airplane's roar are reproduced with stunning clarity. The signal is sent to the appropriate speaker with high channel separation, while secondary sounds like the ambient noise of a concert hall or the great outdoors are reproduced with amazing spaciousness. With LOGIC 7, the listener experiences an unmatched sense of involvement.

With formats such as DVD-Video, DVD-Audio, Super Audio CD, and High-Definition TV, the demand for input connectors has grown. The MC-4 provides compatibility with these formats, offering three component video inputs and eight configurable analog inputs. The analog inputs can be configured as eight stereo inputs, five stereo inputs plus one 5.1-channel input, or two stereo inputs plus two 5.1-channel inputs for separate DVD-A and SACD sources.

The MC-4 uses the same intuitive on-screen menu system and user interface as the MC-12 for navigation of the set-up options and features. Both new users and those that are familiar with Lexicon digital controllers will instantly feel at home with the MC-4 and will be fine-tuning it in minutes.

Designed with a careful balance of performance and function, the MC-4 is sure to impress with its stellar performance, simple user interface, and set-up flexibility. Combined with an RT-10 disc player and a CX series power amplifier, the MC-4 serves as the core of a high performance, high value home theater system.



MC-4 Specifications

Audio Inputs and Outputs

<i>Analog Audio Inputs</i>	Eight stereo (RCA) or five stereo and one 5.1-channel or two stereo and two 5.1-channel connectors
<i>Digital Audio Inputs</i>	Four S/PDIF coaxial (RCA) and four S/PDIF optical (TosLink) connectors Coaxial and optical input connectors conform to IEC-958, S/PDIF standards Accepts 44.1, 48, 88.2 and 96kHz sample rates Accepts 16-24 bits PCM audio, Dolby Digital, DTS and DTS-ES discrete data formats
<i>Audio Outputs</i>	Eight unbalanced (RCA) connectors for Front L/R, Center, Subwoofer, Side L/R, and Rear L/R

Audio Performance

<i>Analog-to-Digital Conversion</i>	24-bit, 96kHz, dual-bit $\Delta\Sigma$ architecture
<i>Digital-to-Analog Conversion</i>	24-bit, 44.1 to 192kHz, multi-bit $\Delta\Sigma$ architecture
<i>Frequency Response</i>	10Hz to 20kHz, +0.05dB/-0.1dB, -0.5dB at 40 kHz, reference 1kHz
<i>THD + Noise</i>	Below 0.008% at 1kHz, maximum output level
<i>Dynamic Range</i>	108dB minimum, 22kHz bandwidth
<i>Signal-to-Noise Ratio</i>	108dB minimum, 22kHz bandwidth
<i>Input Sensitivity</i>	200mVrms (2Vrms for maximum output level) at 0dB input gain
<i>Input Impedance</i>	100k Ω in parallel with 150pF
<i>Output Level</i>	150mVrms typical, 6Vrms maximum Maximum value with full-scale input signal and volume at +12dB
<i>Output Impedance</i>	100 Ω in parallel with 150pF

Video Inputs and Output Connectors

<i>Video Inputs</i>	Five composite (RCA), five S-video, and three component video (RCA)
<i>Video Outputs</i>	One composite (RCA), one S-video, and one component (RCA)

Composite & S-video Performance

<i>Compatibility</i>	NTSC, PAL, and SECAM
<i>Switching</i>	Active
<i>Output Level</i>	1.0V peak-to-peak
<i>Impedance</i>	75 Ω
<i>Input Return Loss</i>	>40dB
<i>Differential Gain</i>	<0.5%
<i>Differential Phase</i>	<0.5°
<i>Bandwidth</i>	>25MHz
<i>K Factor</i>	<0.3%
<i>Gain</i>	± 0.15 dB
<i>Signal/Noise Ratio</i>	>65dB
<i>Frequency Response</i>	10Hz to 10MHz + 0.1/-0.3dB

Component Video Performance

<i>Compatibility</i>	3-channel (Y, Pr, Pb), format-independent
<i>Switching</i>	Passive
<i>Impedance</i>	75 Ω
<i>Bandwidth</i>	>150MHz
<i>Insertion Loss</i>	<3dB

Other

Trigger Outputs	One power on/off and one programmable connector on detachable screw terminals (+12 VDC, 0.5 amps each)
RS-232 Serial Input/Output	Two 9-pin D-sub connectors
Power Requirements	90-250 VAC, 50-60Hz, 60W (universal line input), detachable power cord
Dimensions	
Height (with feet)	3.81" (97mm)
Width	17.3" (440mm)
Depth	14.85" (377mm)
Weight	17lbs (7.6kg)
Rack Mounting	Optional brackets are available for installing in a standard 19-inch equipment rack (two rack units required for MC-4).
Environment	
Operating Temp:	0° to 35°C (32° to 95°F)
Storage Temp:	-30° to 75°C (-22° to 167°F)
Relative Humidity:	95% maximum without condensation
Remote Control	Hand-held, backlit infrared remote control unit
Batteries:	Two AA

Specifications subject to change without notice.

