MTX-MONITOR.V3b-1 MONITOR AMPLIFIER

The MTX-MONITOR.V3b-1 Precision Monitor Router is the successor to the proven MTX-Monitor/MTX-Monitor.V3a, which have both seen regular use as neutral reference units in magazine tests. State-of-the-art components further improve the signal quality. New input stages provide a higher input level and better dynamics, while an upgraded matrix guarantees even lower distortion and optimises crosstalk attenuation and phase response. This convenient monitor amplifier features top-of-the-line signal processing and is one of the most level-accurate analogue pre-amps available today. Areas of application are radio, TV and professional mastering studios, as well as high-end audio systems.

With its dynamic range of more than 124 dB, its excellent frequency and phase response ranging from below 0.3 Hz to more than 1 MHz, as well as its extremely low non-linear distortion of typically 0,0001% (-120 dB) in the all-important midrange, it allows users to neutrally judge any selected signal source. VCAs have been left out completely for quality reasons. The audio matrix, the panning and volume controls, and the majority of monitoring functions in the audio path are non-contacting. This guarantees a high degree of reliability and stability for all audio parameters.

The usual monitoring functions, such as -20 dB, mute left/right, mono, phase, left minus right, speaker mute, balance, etc., are switchable. It is possible to sum any desired combination of inputs. This function may be switched off. External dimming is optional.

The unit features two selectable stereo outputs for connecting power amplifiers or active speakers. The main output is balanced for +6 dBu level, while the secondary output is unbalanced (0 dBu).

An unbalanced stereo measuring output is used for signal monitoring (switches with the monitoring source). This is used for connecting equalisers, stereo imagers or other audio devices. Speakers and headphones have separate volume controls.

A red clipping LED reliably indicates potential distortion across the entire signal chain.

One or several of the eight inputs may be selected as recording signals (record routing), independent of the monitor signal selection.

The MTX-Monitor.V3b-1 is equipped with a precision power supply with separate paths for analogue and digital circuits.

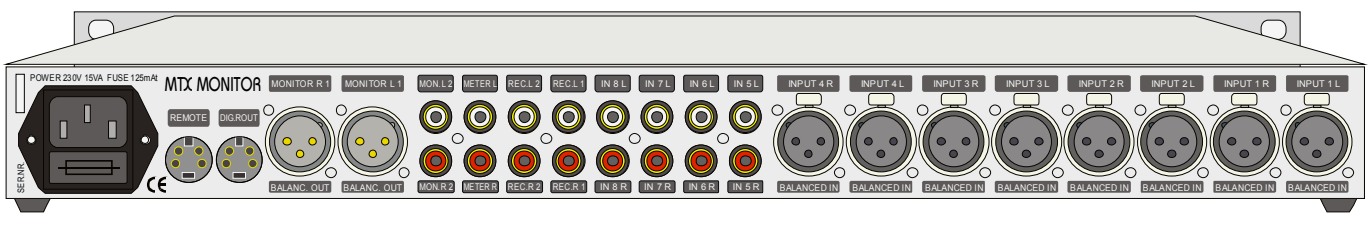
It features inputs for four balanced (+6 dBu) and four unbalanced stereo signals. The levels of all unbalanced RCA inputs and outputs can be adjusted internally.

All functions are available for remote control. A cable remote is available as an option.

All Neutrik XLR and RCA audio connectors are terminated with gold pins.

The MTX-Monitor.V3b-1 is available in several versions and with a wide range of options. The front panel is available with a white coating, or anodised black or blue. Hi-fi versions are delivered with a 435 mm housing, without front 19" rack-mounting holes. Reinforced 5 mm front panels are available in silver or anodised black; studio versions have black, silver or white front panels.

> 8 stereo inputs (4 x balanced, 4 x unbalanced)
> 2 monitor amplifiers (balanced and unbalanced)
> output for stereo peak programme meter and stereo imager
> 2 recording outputs
> various monitoring functions
> high-quality headphone amplifier
> built-in power supply
> remote-control capable
> compatible with digital routers
> excellent audio quality



MTX-MONITOR.V3b-1, hi-fi version, black

REMOTE CONTROL

The remote controler is delivered in a tabletop case. It allows to select between eight analogue sources or, in conjunction with a digital router (FUNK PAS-8, or AMS-2 DAR for AES/EBU signals), the simultaneous selection of eight digital sources. Monitoring and recording source are selectable individually.

If a digital source is selected and the DIGITAL function is enabled, the analogue monitoring router switches to input 1. If a D/A converter is connected here, it is possible to toggle between digital and analogue source signals without having to switch the analogue matrix.

The remote control cable is available in lengths of up to 50 m (default length is 8 m).

The standard version of the MTX-Monitor.V3b is equipped with remote control and digital router connectors (AMS-2-DAR or PAS-8) at the back panel.

Specifications for the MTX-Monitor.V3b measured with R&S UPV (values in parentheses were measured at +18 dBu):

max. Input levell:	+24,0 dBu bal. inputs, +18,0 dBu unbalanced inputs (max. +24,0 dBu adjustable)				
Input impedance:	20 kΩ balanced (XLR) 2 MΩ unbalanced (Cinch)				
Common-Mode Rejection Ratio (CMRR) balanced inputs at 1 kHz/10 kHz:	> 60 dB/60 dB (typ. > 70 dB)				
max. Output level Balanced and "Meter out":	+ 24,5 dBu at 10 kΩ balanced outputs, +24 dBu at 10 kΩ unbalanced outputs				
max. Output level unbalanced outputs:	+ 18,0 dBu at 10 kΩ (max. +24,0 dBu adjustable)				
Output Impedance Monitor 1 (XLR):	25 Ω				
Output Impedance Monitor alternativ + Meter out:	< 1 Ω				
Output Balance Voltage:	> 55 dB/1 kHz > 55 dB/10 kHz				
Output Balance Impedance:	> 60 dB/1 kHz > 60 dB/10 kHz				
max. Output load balanced outputs:	600 Ω at +24,0 dBu / 300 Ω at + 21,5 dBu				
Frequeny Response:	2 Hz ...60 kHz ≤ ± 0,01 dB, 1 Hz...500 kHz ≤ ± 0,1 dB, 0.25 Hz...1,4 MHz ≤ ± 3 dB				
Full Power Bandwith:	1 Hz...100 kHz < ± 0,2 dB				
Phase Response absolute:	20 Hz ...20 kHz < ± 1,5°				
Phase Response relative left « » right:	20 Hz ...20 kHz < ± 0,1°				
Total Harmonic Distortion (THD):	1 kHz < 0,00012 % typ. 0.0001 % (1 kHz < 0,0004 %)				
Total Harmonic Distortion + Noise (THD+N):	1 kHz < 0,00055 % 10 kHz < 0,0011 % (1 kHz < 0,00045 % 10 kHz < 0,0020 %)*				
Difference Frequency Distortion (DFD) 10,5 kHz Difference 1 kHz:	< 0,00004 % (< 0,0005 %)				
Intermodulation Distortion (IMD) 60 Hz/8 kHz:	< 0,0008 % (< 0,005 %)				
Crosstalk Input/Input:	1 kHz ≥ 125 dB 10 kHz ≥ 110 dB				
Crosstalk left « » right:	1 kHz ≥ 110 dB 10 kHz ≥ 100 dB				
max. Gain Input to Output:	+ 6 dB (additional 6 dB from unbalanced Input to balanced output)				
Gain Difference Input/Input:	< ± 0,02 dB				
Gain Difference Output/Output:	< ± 0,03 dB				
Balance Range:	± 6 dB (13 Steps)				
Volume Control Range:	+ 6 dB ...- 105 dB				
Volume Matching left « » right (+6..-60 dB):	< ± 0,1 dB typ. < ± 0,05 dB				
Volumen Resolution (in the Range +6..-40 dB):	0,5 dB (internal 0,125 dB)				
Noise CCIR 468 unweighted MONITOR-OUT balanced:	-100,0 dBu	balanced input	Cinch Input →	-101,0 dBu	
Noise "A"weighted MONITOR-OUT balanced:	-102,5 dBu	balanced input	Cinch Input →	-103,5 dBu	
Noise CCIR 468 weighted MONITOR-OUT balanced:	-89,0 dBu	balanced input	Cinch Input →	- 90,0 dBu	
Noise CCIR 468 unweighted RECORD-OUT:	-109,0 dBu	balanced input	Cinch Input →	- 111,5 dBu	
Noise "A"weighted RECORD-OUT:	-111,5 dBu	balanced input	Cinch Input →	- 114,0 dBu	
Noise CCIR 468 weighted RECORD-OUT:	-98,0 dBu	balanced input	Cinch Input →	- 100,5 dBu	
Noise CCIR 468 unweighted METER-OUT/DIREKT OUT:	-104,0 dBu	balanced input	Cinch Input →	-108,5 dBu	
Noise CCIR 468 weighted METER-OUT/DIREKT OUT:	-93,0 dBu	balanced input	Cinch Input →	- 97,5 dBu	
Dynamic CCIR 468 unweighted MONITOR-OUT balanced:	124,0 dB	balanced input	Cinch Input →	125,0 dB	
Dynamic "A"weighted MONITOR-OUT balanced:	126,5 dB	balanced input	Cinch Input →	127,5 dB	
Dynamic CCIR 468 unweighted RECORD-OUT:	127,0 dB	balanced input	Cinch Input →	129,5 dB	
Dynamic "A"weighted RECORD-OUT:	129,5 dB	balanced input	Cinch Input →	132,0 dB	
Overload LED Threshold:	+ 23,5 dBu bal. Input/Output	+17,5 dBu (23,5) unbalanced Input			

Headphone Amplifier

max. Power:	2 x 600 mW at 150Ω
Output Voltage under load:	+ 23,5 dBu/600 Ω + 23,0 dBu/300 Ω + 22 dBu/150 Ω + 14,5 dBu/60 Ω
Total Harmonic Distortion (THD): (400 Hz..80 kHz):	Ua + 20 dBu 1 kHz < 0,0010 % 10 kHz < 0,0020 % at 150 Ω
Frequency Response:	20 Hz ...20 kHz < ± 0,05 dB
Dimension Main Unit:	19 Inchl/1U 44 x 250 x 483 mm Weight: 3,5 kg Unit and Front panel: white, silver or black
Dimension Remote Control Unit:	150 x 195 x 50 mm Weight: 0,6 kg ABS-Material Coulor: white or Nextel grey
Warranty:	3 Years for workmanship and parts

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