

MTX-MONITOR.V3b-4.2.1 TECHNICAL DATA

If not stated otherwise sym. Monitor output measured at 10 kΩ load, gain 0 dB and + 6 dBu working level on sym. input, values in brackets () at +18 dBu (+12 dBu at RCA inputs), Power supply voltage: 230 V_~. All measurements were made with Audioanalyzer APx555 + AP2722 + R&S UPV

max. input level (THD < 0.1%):	+24,0 dBu bal. , +18,0 dBu unbal. (max. +24,0 dBu adjustable**)	
Input impedance :	20 kΩ balanced (XLR) 2 MΩ unbalanced (RCA)	
CMRR common mode rejection ratio: 1 kHz/10 kHz :	> 62 dB/62 dB (typ. > 70 dB), IEC: > 58 dB/58 dB (typ. > 60 dB/60 dB)	
max. output level balanced out and meter out:	+ 24,5 dBu at 10 kΩ bal. out +24,0 dBu at 10 kΩ unbalanced meter out	
max. output level unbalanced out:	+ 18,5 dBu at 10 kΩ [max. +24,0 dBu adjustable**]	
Output impedance balanced Monitor 1 (XLR):	< 25 Ω	
Output impedance unbalanced Monitor 2 and meter out:	< 1 Ω	
Output voltage symmetry :	≥ 75 dB/1 kHz ≥ 70 dB/10 kHz	
Output impedance symmetry (Ref. 600 Ω) :	≥ 75 dB/1 kHz ≥ 70 dB/10 kHz	
max. load on sym. and asymmetric monitor outputs:	600 Ω at +24 dBu / 300 Ω at + 21,5 dBu	
Frequency response :	3 Hz...60 kHz ± 0,01 dB 1,5 Hz...500 kHz ± 0,1 dB 0,3 Hz...1,4 MHz ± 3 dB	
Large signal bandwidth (+22 dBu) :	1 Hz...100 kHz < ± 0,2 dB	
Phase deviation absolut:	20 Hz 20 kHz < ± 1,5°	
Phase deviation relativ left < > right :	20 Hz ...20 kHz < ± 0,1°	
THD nonlinear harmonic distortion:	1 kHz < 0,00006 % (1 kHz < 0,00008 %), 10 kHz : < 0,00015 % (0,0006 %)	
THD+N nonlinear harmonic distortion + noise:	1 kHz 0,00048 %* 10 kHz < 0,0009 %* (1 kHz < 0,00018 % 10 kHz < 0,0007 %)*	
DFD d2+d3 (ITU-R) difference frequency distortion:	10,5 kHz, diff. frequency 1 kHz : < 0,00003 % (< 0,00005 %)	
IMD (SMPTE) Intermodulation 60 Hz/7 kHz 4:1 :	< 0,0006 % (< 0,0010 %)	
DIM 30 Transient Intermodulation 3,15kHz sq /15kHz sin.:	< 0,00025 % (< 0,0012 %)	
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 > output :	+ 6 dB (additional +6 dB by asymmetrical input on balanced out)	
Gain deviation left input / right input :	< ± 0,01 dB	
Gain deviation output/output typ:	< ± 0,02 dB	
Balance adjustment range:	± 6 dB (13 levels)	
Balance step size:	1,0 dB ± < 0,2 dB (typ. ± 0,05 dB)	
Volume regulator range :	+ 6 dB ...- 115 dB	
Uniformity of volume regulator left < > right (+6...-80 dB)	< ± 0,1 dB typ. < ± 0,05 dB	
Volume regulator resolution working range (+6...-40 dB):	0,5 dB (internally 0,125 dB)	
Output noise	MONITOR-OUT XLR sym. :	-100,5 dBu ± 0,2 dB BW 20 Hz..22 kHz eff.unweighted from RCA input -102,5 dBu
		-102,5 dBu ± 0,2 dB A-eff. weighted from RCA input -105,0 dBu
		- 89,5 dBu ± 0,5 dB CCIR 468-3 qp weighted from RCA input - 91,5 dBu
Output noise	MONITOR OUT-2 RCA asym. :	-100,5 dBu 20 Hz..22 kHz eff. unweighted from RCA input -102,5 dBu
		-103,0 dBu A-eff. weighted from RCA input -104,5 dBu
		- 89,5 dBu CCIR 468-3 qp weighted from RCA input - 91,0 dBu
Output noise	RECORD OUT RCA :	-109,0 dBu 20 Hz..22 kHz eff. unweighted from RCA input - 111,5 dBu
		-111,5 dBu A-eff. weighted from RCA input - 114,0dBu
		-98,0 dBu CCIR 468-3 qp weighted from RCA input - 100,5 dBu
Output noise	METER OUT/DIREKT OUT RCA :	-104,0 dBu 20 Hz..22 kHz eff. unweighted from RCA input -105,0 dBu
		-93,0 dBu CCIR 468 qp weighted from RCA input - 97,5 dBu
Dynamik Ref. +21 dBu .. MONITOR OUT XLR sym. :		124,5 dB CCIR eff. unweighted from RCA input 127,0 dB
		127,0 dB A-eff. weighted from RCA input 128,5 dB
Dynamik Ref. +21 dBu .. MONITOR OUT-2 RCA asym. :		124,5 dB CCIR eff. unweighted from RCA input 126,0 dB
		127,0 dB A eff. weighted from RCA input 128,5 dB
Dynamik Ref. +21 dBu .. RECORD OUT RCA :		127,0 dB CCIR eff. unweighted from RCA input 129,5 dB
		129,5 dB A-eff. weighted. from RCA input 132,0 dB
Clip indicator trigger level in monitor path :	+ 23,5 dBu sym. Ein- und Ausgänge +17,5 (23,5**) dBu asym. Eingänge	
HEADPHONE AMPLIFIER:		
max. output power 1 kHz :	2 x 1300 mW at 70 Ω (THD+N < 0,00025% or < -112 dB)	
max. output power versus impedance:	2 x 260 mW/600 Ω, 2x 485 mW/300 Ω, 2x 1100 mW/100 Ω, 2x 900 mW/32 Ω	
Output impedance:	< 2 Ω	
max. capacitive load:	47 nF	
THD+N nonlinear harmonic distortion + noise:	2x 1000 mW at 100 Ω 1 kHz < 0,00018 % (-115 dB)* 10 kHz < 0,0008 % (-102 dB)*	
Frequency response :	20 Hz ...20 kHz < ± 0,03 dB (R _L = 2x 32 Ω	
Output noise CCIR 468 qp weighted (Gain = 0,0 dB) :	< - 90,0 dBu (with +6 dB Gain, Phones Volume full clockwise -86,0 dBu)	
Output noise A-eff. weighted (Gain = 0,0 dB) :	< -103,5 dBu (with +6 dB Gain, Phones Volume full clockwise -99,0 dBu)	
Output noise 20 Hz..20 kHz eff. (Gain = 0,0 dB) :	< -101,5 dBu (with +6 dB Gain, Phones Volume full clockwise -97,0 dBu)	
MTX MONITOR.V3b-4.2.1 Power supply :	230V / 50..60 Hz (115V / 60 Hz briefly available)	
Power consumption typ.:	13 W	
Power consumption max.:	22 W incl. Remote, full audio power, additional digital Router AMS-2 DAR or PAS-8	
Safety class:	1	
Dimensions main unit:	19 inch/1HE 483 x 44 x 250 mm weight: 3,7 kg color Case/Front : RAL7035 or black	
Dimensions remote:	150 x 195 x 50 mm weight: 0,6 kg ABS-plastic, color : RAL 7035 (opt. dark gray)	
Guarantee:	3 Years time and materials	

* Measurement bandwidth THD+N at 1 kHz frequency : 20 Hz..22 kHz, at 10 kHz frequency : 20 Hz..80 kHz (unless otherwise stated)

** when calibrating the asymmetric inputs and outputs for line level of +6 dBu.

All inputs and outputs can also be operated asymmetrically without affecting the technical data. Unlike many conventional amplifier circuits, the headroom is not changed by it! The difference in the output level between symmetrical and unbalanced connection is: < 0.1 dB. All outputs are short-circuit protected.

TECHNICAL DATA DIGITAL ROUTER AMS-2 DAR / PAS-8 (Option)

Number of inputs :	8x input
Number of outputs :	2x Monitor 2x Record (electrically isolated from each other)
Insert :	1x Send and 1x Return (only PAS-8)
Input connector :	XLR female gold-plated
Output connector :	XLR male gold-plated
Digital format :	AES/EBU / AES3 (transparent for all biphas formats)
supported word length :	8..24 bits
supported clock frequency :	24...105 kHz
permissible input level :	300 mV...5V pp (max. 10V pp)
Input impedance :	110 Ω (optional 1 k Ω via internal jumper) transformer balanced floating
allowable input common mode voltage max. :	\pm 60V
Output level :	4,5 V pp at 110 Ω
Output impedance :	110 Ω transformer balanced floating
allowable output common mode voltage max. :	\pm 60V
Output rise time :	15...20 ns
Delay input to output :	60...80 ns
cumulative jitter (100 Hz..110 kHz) :	< 500 pS RMS at Ue 500mV...5Vpp (typ. < 300 pS RMS at Ue 2...5 Vpp)
Synchronization :	external synchronization is not required
remote controlled :	serial interface similar symmetrical RS422
Power Supply AMS-2 DAR :	5,5V DC powered by MTX-MONITOR
Power Supply PAS-8 :	5,5V DC powered by MTX-MONITOR or 230V/50Hz mains
Power consumption :	3 VA
Fuse :	electronic current limiting (PAS-8 additional fuse)
Safety class :	1 (in connection with MTX-MONITOR)
Case design :	sheet steel coated RAL 7035 or 7040, front light gray RAL 7035
Dimensions AMS-2 DAR :	483 mm x 250 mm x 44 mm (Breite x Tiefe x Höhe) weight: 2,6 kg
Abmessungen PAS-8 :	483 mm x 250 mm x 44 mm (Breite x Tiefe x Höhe) weight : 3,0 kg
Guarantee :	3 Years time and materials