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GHIELMETTI

GMS 2120 – White Noise and Pink Noise generator

GMS 2120 – 3 pair monitor outputs

Monitor amplifier	
Input signals:	analog to max. +27 dBu, 10 Hz ... 20 kHz digital 0.5 Vpp ... 7 Vpp
Sample rate:	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz und 192 kHz
Input impedance:	analog: 20 kΩ at 1 kHz, symmetrical digital: 110 Ω XLR, symmetrical
Inputs rear side:	2 analog stereo channels, symmetrical, XLR female 3 digital AES/EBU channels, symmetrical, XLR female
Inputs front side:	1 analog stereo channel, symmetrical G3P (2x Ghielmetti 3 pole) 1 digital AES/EBU channel, symmetrical G3P (1x Ghielmetti 3 pole)
Outputs rear side:	1 analog stereo channel, symmetrical XLR male 1 digital AES/EBU channel, symmetrical XLR male
Gain between input and main output:	analog: 0 dB ± 0.1 dB digital: Reshaping of signal to 3 Vpp
Gain between main output and monitor outputs:	adjustable by separate volume control –70 dB ... +20 dB
Output front side:	1 Headphones output stereo, 6.35 mm jack
Power output:	2x10 W
Analog inputs and outputs	
No. of stereo inputs:	a-b-s, rear side, 2 symmetrical, XLR female a-b-s, front side, 1 symmetrical, G3P
Input impedance:	a-b, 20 kΩ at 1 kHz a-s, 10 kΩ at 1 kHz b-s, 10 kΩ at 1 kHz
No. of stereo outputs:	a-b-s, rear side, 4 symmetrical, XLR male
Output impedance:	a-b, 60 Ω at 1 kHz a-s, 30 Ω at 1 kHz b-s, 30 Ω at 1 kHz
Digital inputs and outputs	
No. of inputs:	a-b-s, rear side, 3 symmetrical, XLR female a-b-s, front side, 1 symmetrical, G3P
Input impedance:	110 Ω XLR, galvanically separated
No. of outputs:	a-b-s, back side, 1 symmetrical, XLR male
Output impedance:	110 Ω XLR, galvanically separated
Analog input → Analog main output	
Gain (20 Hz-20 kHz):	0 dB ± 0.3 dB, chosen input to output
Signal-to-noise ratio:	> 80 dB at 1 kHz und 0 dBu input signal
Cross talk attenuation:	> 80 dB at 1 kHz
Switch off attenuation:	> 90 dB at 1 kHz, and 0 dBu input signal
Electrical distortion factor:	< 0.1 % at 1 kHz and 0 dBu input signal
Analog input → Digital output	
Gain (20 Hz-20 kHz):	0 dB ± 0.3 dB, chosen input to output
Signal-to-noise ratio:	> 90 dB at 1 kHz and 0 dBu input signal
Cross talk attenuation:	> 90 dB at 1 kHz
Switch off attenuation:	> 90 dB at 1 kHz, and 0 dBu input signal
Electrical distortion factor:	< 0.1 % at 1 kHz and 0 dBu input signal
Digital input → Analog main output	
Gain (50 Hz-20 kHz):	0 dB ± 0.3 dB, chosen input to output
Signal-to-noise ratio:	> 75 dB at 1 kHz and 15 dBFS input signal
Cross talk attenuation:	> 90 dB at 1 kHz
Switch off attenuation:	> 100 dB at 1 kHz and 15 dBFS input signal
Electrical distortion factor:	< 0.1 % at 1 kHz and 15 dBFS input signal
Digital input → Digital output	
Gain (10 Hz-20 kHz):	0 dB chosen input to output
Signal-to-noise ratio:	> 100 dB at 1 kHz and 15 dBFS input signal
Cross talk attenuation:	> 100 dB at 1 kHz
Electrical distortion factor:	< 0.1 % at 1 kHz and 15 dBFS input signal
Sample rates:	32 k ... 192 kHz
Output signal jitter:	< 2 ns
Main output → Monitor outputs	
Gain (20 Hz-20 kHz):	-70dB, -60 dB, -50 dB, -40 dB ... +20 dB, adjustable in 0.5 dB steps,
main output to chosen output:	
Signal-to-noise ratio:	> 80 dB at 1 kHz and 0 dBu main output signal
Cross talk attenuation:	> 80 dB at 1 kHz
Switch off attenuation:	> 96 dB at 1 kHz, and 0 dBu main output signal
maximum output level:	+ 27 dBu
Loudspeaker amplifiers	
Power output:	midrange driver, tweeter max. 10 W per channel
Acoustic frequency range (± 5 dB):	80 Hz ... 16 kHz, measured at 60 cm distance
Headphones amplifiers	
Power output on 8 Ohm:	max. 0.2 W per channel
Electrical frequency range (± 3 dB):	20 Hz ... 20 kHz
Distortion factor:	< 0.5 % at 1 kHz
Analog digital converter	
Resolution:	24 bits
Sample rate:	selectively 96 kHz or 192 kHz (switch over the "Off" pushbutton)
Input level analog:	max. +15 dBu for distortion free conversion
Digital analog converter	
Resolution:	24 bits
Sample rate:	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz
Indicators	
Level range:	-60 dBu ... +24 dBu, scale specific labels available
Indication modes:	Peak & fast Mode, Peak only, Level only, Peak & level
Phase:	7 LEDs: –1 ... +1
Sample rate:	7 LEDs: 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz
AES/EBU:	Locked, Error
Monitor output volume:	31 LEDs, 4 lightness levels for indicating amplification in 0.5 dB steps
Output clipping:	1 LED for indicating maximum monitor output level of +27 dBu
White noise and pink noise outputs:	white noise (flat) and pink noise (-3 dB/octave)
PRN sequence length:	48 Bit
Output level on monitor outputs:	adjustable between –70 dBu and +20 dBu
Remote	
Remote input:	RS-485, 19.2 kB/s and 12 VDC output for optional remote controller
Remote connector:	D-Sub 9 pole, female
General	
Operating voltage:	90 VAC ... 267 VAC, 47 ... 63 Hz
Power:	60 Wmax.
Operation temperature:	0 °C ... +45 °C
Storage temperature:	-20 °C ... +55 °C
Housing:	19" rack mounting, 2 RU, depth 240 mm
Weight:	5.8 kg

Audio Test and Monitoring System

3 Outputs for Mastering Speakers – White and Pink Noise Generator

GMS 2120

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GHIELMETTI

Audio Test and Monitoring System

3 Outputs for Mastering Speakers – White and Pink Noise Generator

GMS 2120

High Performance for Mastering

$$S(f) \propto \frac{1}{f^{\alpha}}$$

- 3 individually selectable outputs to active speakers
- White and Pink Noise generator
- Phase and level indicator for 2 channels (L, R)
- Monitoring router 3x1 for analog and 4x1 for digital inputs
- 24 Bit AD/DA converter for analog and digital channels
- Monitor signal simultaneously on analog and digital output available
- Sample Rates: 32, 44.1, 48, 88.2, 96, 176.4 and 192 kHz
- High performance loudspeakers
- Headphone output with volume and balance control and switchable 40dB preamlification for microphone signals
- RS-485 remote interface to remote control unit

GMS 2110

GMS 2100 - with Sine Wave Generator

Monitor amplifier	
Input signals:	analog to max. +27 dBu, 10 Hz ... 20 kHz digital 0.5 Vpp ... 7 Vpp
Sample rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz und 192 kHz
Input impedance:	analog: 20 kΩ bei 1 kHz, symmetrical digital: 110 Ω XLR, symmetrical, 75 Ω BNC, asymmetrical
Inputs (dorsal):	2 analog stereo channels, symmetrical, stereo jack connector 6.35mm 2 analog Stereo channels, symmetrical, XLR female 3 digital AES/EBU channels, symmetrical, XLR female 3 digital AES/EBU channels, asymmetrical, BNC 75 Ω
Inputs front side:	1 analog stereo channel, symmetrical G3P (2x Ghielmetti 3 pole) 1 digital AES/EBU channel, symmetrical G3P (1x Ghielmetti 3 pole)
Outputs (dorsal):	1 analog stereo channel, symmetrical, stereo jack connector 6.35mm 1 analog stereo channel, symmetrical XLR male 1 digital AES/EBU channel, symmetrical XLR male 1 digital AES/EBU channel, asymmetrical BNC 75 Ω
Gain between input and output:	analog: 0 dB ± 0.1 dB digital: Reshaping of Signal to 3 Vpp (XLR, 110 Ω termination) reshaping of Signal to 2.5 Vpp (BNC, 75 Ω termination)
Output impedance:	analog: 60 Ω at 1 kHz digital: 110 Ω XLR, 75 Ω BNC
Output (frontally):	1 Headphones output stereo, 6.35 mm jack
Power output:	10 W RMS per channel
Analog inputs and outputs	
No. of stereo inputs	a-b-s, dorsal, 2 symmetrical, 6.35mm stereo jack plug a-b-s, dorsal, 2 symmetrical, XLR female a-b-s, frontally, 1 symmetrical, G3P
Input impedance	a-b, 20 kΩ at 1 kHz a-s, 10 kΩ at 1 kHz b-s, 10 kΩ at 1 kHz
No. of stereo outputs	a-b-s, dorsal, 1 symmetrical, 6.35mm stereo jack plug a-b-s, dorsal, 1 symmetrical, XLR male
Output impedance	a-b, 60 Ω at 1 kHz a-s, 30 Ω at 1 kHz b-s, 30 Ω at 1 kHz
Output level	analog: 0 dB ± 0.1 dB digital: Signal reshaped to 3 Vpp (XLR, 110 Ohm termination) Signal reshaped to 2.5 Vpp (BNC, 75 Ohm termination)
Digital inputs and outputs	
No. of inputs	a-b-s, dorsal, 3 symmetrical, XLR female a-s, 3 asymmetrical, BNC a-b-s, frontally, 1 symmetrical, G3P
Input impedance	110 Ω XLR, 75 Ω BNC, galvanically separated
No. of outputs	a-b-s, dorsal, 1 symmetrical, XLR male a-s, 1 asymmetrical, BNC
Output impedance	110 Ω XLR, 75 Ω BNC, galvanically separated
Analog input → analog output	
Gain (20Hz-20kHz)	0 dB ± 0.3 dB, chosen input to output
Signal-to-noise ratio	> 80 dB at 1 kHz und 0dBu input signal
Cross talk attenuation	> 80 dB at 1 kHz
Switch off attenuation	> 90 dB at 1 kHz, and 0 dBu input signal
Electrical distortion factor	< 0.1 % at 1 kHz and 0 dBu input signal
Analog input → digital output	
Gain (20Hz-20kHz)	0 dB ± 0.3 dB, chosen input to output
Signal-to-noise ratio	> 90 dB at 1 kHz and 0 dBu input signal
Cross talk attenuation	> 90 dB at 1 kHz
Electrical distortion factor	< 0.1 % at 1 kHz and 0 dBu input signal
Digital input → analog output	
Gain (50Hz-20kHz)	0 dB ± 0.3 dB, chosen input to output
Signal-to-noise ratio	> 75 dB at 1 kHz and -15dBFS input signal
Cross talk attenuation	> 90 dB at 1 kHz
Switch off attenuation	> 100 dB at 1 kHz and -15dBFS input signal
Electrical distortion factor	< 0.1 % at 1 kHz and -15dBFS input signal
Digital input → digital output	
Gain (10Hz-20kHz)	0dB chosen input to output
Signal-to-noise ratio	> 100 dB at 1 kHz and -15dBFS input signal
Cross talk attenuation	> 100 dB at 1 kHz
Electrical distortion factor	< 0.1 % at 1 kHz and -15dBFS input signal
Sample rates	32 k ... 192 kS/s
Output signal Jitter	< 2
Loudspeakers amplifier	
Power output	midrange driver , tweeter max. 10 W RMS, per channel
Acoustic frequency range (± 5 dB)	80 Hz ... 16 kHz, measured at 60 cm distance
Headphones amplifier	
Power output on 8 Ohm	max. 0.2 W RMS per channel
Electrical frequency range (± 3 dB)	20 Hz ... 20 kHz
Distortion factor	< 0.5 % at 1 kHz
Analog digital converter	
Resolution	24 bits
Sample rate	selectively 96kHz or 192 kHz (switchover through the "Off" pushbutton)
Input level analog	max. +15 dBu for distortion free conversion
Digital analog converter	
Resolution	24 bits
Sample rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz und 192 kHz
Level and phase indication	
Indication range:	-60 dBu ... +24 dBu, scale specific labelling available
Indication mode:	Peak & Fast Mode, Peak only, Level only, Peak & Level
Phase indication:	For controlling mono compatibility of stereo signals
Sine Wave Generator	
Output frequencies:	800 Hz and 1000 Hz
Digital sampling rates:	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
AES/EBU format:	Pro
Outputs frontsides:	1 analog stereo channel, symmetrical G3P (2x Ghielmetti 3 pole)
Output level analog:	adjustable in steps of 10 dB between –50 dBu and +10 dBu
Output level digital:	3 Vpp
General indication	
Operating voltage:	90 VAC ... 267 VAC, 47 ... 63 Hz
Power:	60 Wmax.
Operation temperature:	0 °C ... +45 °C
Storage temperature:	-20 °C ... +55 °C
Housing:	19" rack mounting, 2 RU, depth 240 mm
Weight:	5.8 kg

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GHIELMETTI

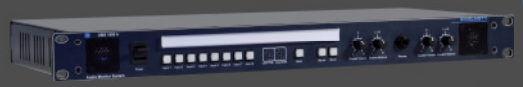
GFPE 2010

GMS 2100

GMS 2110

GMS 2120

GMS 2130

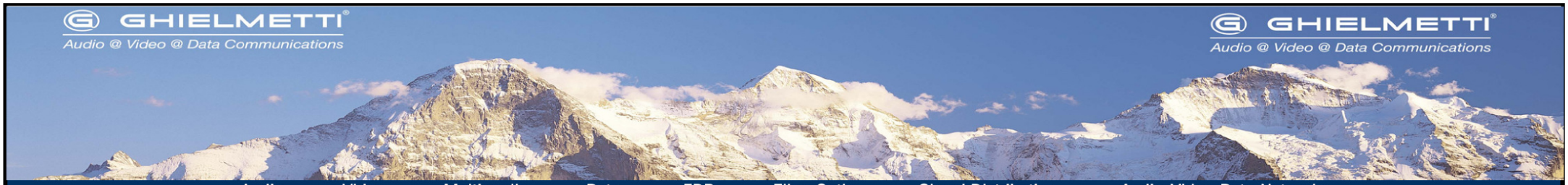


GMS 1800 A

GMS 1820 A

Audio Test and Monitoring Systems

Your assistance in your studio, main control or for mastering



Audio Video Multimedia Data EDP Fibre Optic Signal Distribution Audio-Video-Data-Networks

Ghielmetti Audio Test- und Monitoring Systems

	GFPE 2010	GMS 2100	GMS 2110	GMS 2120	GMS 2130	GMS 1800A	GMS 1800AD P	GMS 1820A
Part Number	678.110.069.50	678.110.086.01	678.110.086.10	678.110.086.20	678.110.086.30	678.110.099.01	678.110.101.10	678.110.100.01
Price EURO	20565.00	3053.00	2422.00	1820.00	1650.00	950.00	985.00	769.00
Features								
Sine-wave Generator	8	2	--	--	--	--	--	--
Level-, Peak- Phasemeter	Levelmeter	yes	yes	yes	yes	--	yes	--
Number of Loudspeakers	1	2	2	2	2	2	2	1
Loudspeaker Output Power	1x10W	2x10W	2x10W	2x10W	2x10W	2x2W	2x2W	1x2W
Headphone Amplifier	--	1	1	1	--	1	1	--
Input analogue, RJ45	5	--	--	--	--	--	--	--
Input analogue, XLR	--	2 stereo	2 stereo	2 stereo	2 stereo	4 stereo, 8 mono	2 stereo, 4 mono	--
Input analogue, G3P	--	1 stereo	1 stereo	1 stereo	1 stereo	1 stereo, 2 mono	1 stereo, 2 mono	--
Input analogue, Jack, 6.3mm	--	2 stereo	2 stereo	--	--	--	--	--
Input analogue, Screw Mount Connectors	--	--	--	--	--	--	--	8 mono
Input digital, E1 RJ45	1	--	--	--	--	--	--	--
Input digital, AES/EBU XLR	--	3	3	3	3	--	3	--
Input digital, AES/EBU G3P	--	1	1	1	1	--	1	--
Input digital, AES/EBU BNC, 75 Ohm	--	3	3	--	--	--	--	--
Output analogue, RJ45	5	--	--	--	--	--	--	--
Output analogue, XLR	--	1 stereo	1 stereo	4 stereo (3+1)	1 stereo	1 stereo, 2 mono	1 stereo, 2 mono	--
Output analogue, Jack, 6.3mm	--	1 stereo	1 stereo	--	--	--	--	--
Output digital, E1 RJ45	1	--	--	--	--	--	--	--
Output digital, AES/EBU XLR	--	1	1	1	--	--	1	--
Output digital, AES/EBU BNC, 75 Ohm	--	1	1	--	--	--	--	--
Router digital	--	4 : 1	4 : 1	4 : 1	--	--	4 stereo : 1 stereo	--
Router analogue	--	3 stereo : 1 stereo	3 stereo : 1 stereo	3 stereo : 1 stereo	--	8:1 mono, 4:1 stereo	6:1 mono, 3:1 stereo	--
A/D-Converter AES (switchable 96kb/s, 192 kb/s)	--	1 stereo	1 stereo	1 stereo	--	--	--	--
D/A Converter AES/EBU	--	1 stereo	1 stereo	1 stereo	1 stereo	--	1 stereo	--
E1-Interface (2Mb/s)	1	--	--	--	--	--	--	--
Sample Rate LEDs for 32,44.1,48,88.2,96,176.4,192 kb/s	--	yes	yes	yes	--	--	--	--
AES/EBU Error Detection Signal LED	--	yes	yes	yes	yes	--	yes	--
E1 Bit Error Measurements	yes	--	--	--	--	--	--	--
Additional Headphone Preamplification 20dB	--	--	--	--	--	yes	yes	--
Additional Headphone Preamplification 40dB	--	yes	yes	yes	--	yes	yes	--
Additional Loudspeaker Preamplification 20dB	--	--	--	--	--	yes	yes	yes
Additional Loudspeaker Preamplification 40dB	--	--	--	--	--	yes	yes	yes
RS485 Remote Interface	--	1	1	1	--	--	--	--
USB-Interface	1	--	--	--	--	--	--	--
19", RU	4	2	2	2	2	1	1	1
Installation depth [mm]	305	240	240	240	240	150	150	150
Weight [kg]		5.8	5.7	5.5	5.5	2.9	2.9	2.75

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