MEDIA-SERIES
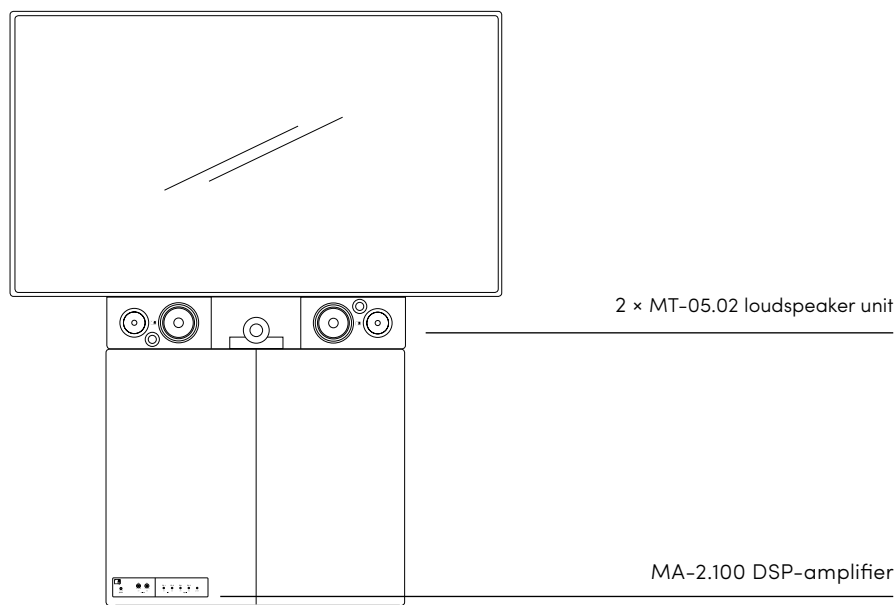## MS-HM.02

AUDIO SYSTEM FOR INTEGRATION INTO MEDIA BOARDS
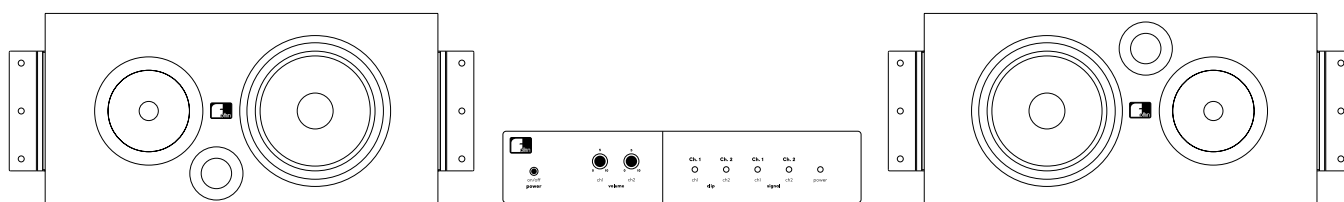
MEDIA-SERIES
CONTENTS

INTEGRATED, HIGH QUALITY SOLUTIONS FOR MEDIA APPLICATIONS.

When it comes to providing perfect sound for web conferences, users often face a problem: Depending on the number of participants involved; and the available internet bandwidth; the quality of sound can be very limited making things difficult to understand. Achieving a good transmission quality requires loudspeaker components that are designed for best possible speech reproduction. In addition, the audio signal needs appropriate filtering via digital signal processors (DSP). Only then do you have the basis for a relaxed, intelligible web conferencing environment, which benefits everyone involved.

FOHHN's new **MEDIA–SERIES** provides such a solution: an integrated, tuned, two–channel audio system that offers optimized speech intelligibility for web conferences and flawless reproduction of high quality media sound. Each system includes two high performance loudspeaker units and a compact DSP amplifier unit with appropriate user presets.
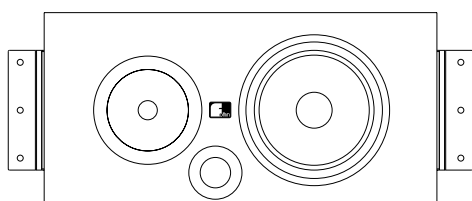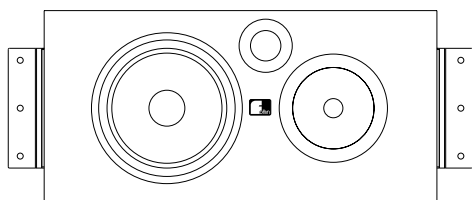
2 × MT–05.02 loudspeaker unit

MA-2.100 DSP–amplifier

THE
PRODUCT

MS-HM.02

# MS-HM.02
PRODUCT DESCRIPTION

A specially tuned two-channel audio system designed for optimal speech intelligibility during web conferences and flawless reproduction of high quality media sound. The audio system consists of two extremely flat, powerful loudspeaker systems and a separate, compact DSP amplification unit with appropriate pre-programmed user presets and a pre-assembled cable set.
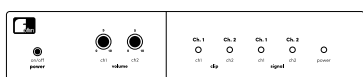
CONTENTS AND SPECIFICATIONS

2 × FOHHN MT-05.02

DSP-controlled loudspeaker system consisting of two **FOHHN MT-05.02** slim-line loudspeaker units specially developed for flat media boards. Low resonance, birch plywood loudspeaker enclosure, equipped with 5" long excursion driver and 1" dome tweeter with short horn, self-resetting polyswitch high frequency protection, bass reflex tuning, 80 W, 8 Ohm, 4 x M5 screw thread mounting points for brackets, sliding feet, terminal connections top and bottom.
Dimensions: 328 × 163 × 99.5 mm (W × H × D).

1 × MA-2.100 DSP AMPLIFIER UNIT WITH APPROPRIATE PRE-PROGRAMMED USER PRESETS

The integrated, CLASS D amplifier unit is equipped with specially programmed loudspeaker presets. Programming includes performance- and speaker protect presets which are based on recorded measurement data, frequency response equalization and speech optimization. In addition, optimization of the overall sound is aligned with the inner enclosure volume of the media board. Power: 2 × 100 Watt / 4 Ohm. The convection-cooled DSP amplifier works silently. Weight: 2.2 kg. 1U metal enclosure.
Dimensions: 216 × 45 × 343 mm (W × H × D).

1 × PRE-ASSEMBLED CABLE SET FOR LOUDSPEAKER WIRING

Item No.: 5123-00000 MS-HM.02

TECHNICAL DOCUMENTATION

MS-HM.02

MS-HM.02
TENDER SPECIFICATION

AUDIO SYSTEM FOR INTEGRATION INTO MEDIA BOARDS

Specially tuned, two-channel "slimline" audio system designed for optimal speech intelligibility during web conferences and flawless reproduction of high quality media sound. The audio system consists of two extremely flat, powerful loudspeaker units, specially developed for media boards, and a separate, compact DSP amplifier unit with suitable pre-programmed user presets and a pre-assembled cable set.

The two DSP-controlled, two-way loudspeaker units with bass reflex tuning are each equipped with a 5" long excursion driver and 1" dome tweeter with short horn and self-resetting polyswitch for high frequency protection. Able to briefly handle peak power of up to 320 W, the loudspeaker units each generate a maximum SPL of 110 dB. They have a nominal dispersion of 90° × 90° (h × v) with a wide frequency range of 68 Hz to 20 kHz. Both loudspeaker units also have a compact, low resonance birch plywood enclosure, with four M5 screw thread mounting points for brackets and terminal connections top and bottom.

The two-channel, DSP-controlled CLASS D amplifier unit has a power output of 100 W / 4 Ohm per channel. It also has specially programmed performance- and speaker-protect presets for each loudspeaker unit. These include frequency response equalization, speech optimization and overall sound optimization aligned with the inner enclosure volume of the media board. The convection-cooled amplifier unit has a 9.5" wide, 1U metal enclosure. Rear panel connections: two balanced line inputs with plug-in Phoenix terminals and an input impedance of 20 kOhm, two unbalanced RCA line inputs with an input impedance of 10 kOhm, two loudspeaker outputs (Phoenix terminals), a 4-pin Phoenix terminal for connecting an optional potentiometer for volume control.

MS-HM.02
TECHNICAL DATA (PER LOUDSPEAKER UNIT)

ELECTROACOUSTIC FEATURES

Acoustic design	compact passive loudspeaker, 2-way, vented
Components	5″ / 1″ dome tweeter with short horn and self resetting IPC[*] high frequency protection
Power rating (nominal) [1]	80 W
Power rating (programme) [2]	160 W
Power rating (peak) [3]	320 W
Sound pressure	87 dB
Maximum sound pressure [3]	110 dB
Frequency range [4]	68 Hz – 20 kHz
Nominal dispersion (h × v) [5]	90° × 90°
Nominal impendance	8 Ω

GENERAL FEATURES

Enclosure	Birch plywood
Front design	open, behind cover panel
Mounting points	4 × M5 threaded inserts with mounting brackets
Connections	2 × loudspeaker connection terminals with spring-loaded terminal connection
Standard colours	textured paint, black
Dimensions (W × H × D)	328 × 163 × 99.5 mm
Weight [6]	3.3 kg

OPTIONAL FEATURES

Special colours [5]	all RAL Classic colours, other colour catalogues possible on request

[1] According to IEC-60268-5 long term
[2] According to IEC-60268-5 short term
[3] Peak, 20 ms with bandpass filtered pink noise signal according to IEC 60268-2, at one octave above the lower limit of the frequency range
[4] -10 dB under anechoic half space conditions with speaker preset
[5] Horizontal × vertical at -6 dB
[6] Net weight without other components
[*] Intelligent Protection Circuit: Voltage-controlled semiconductor circuit, which, with an extremely short response time, effectively protects the high frequency driver against overload
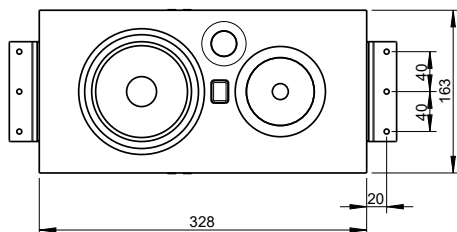
MS-HM.02
TECHNICAL DATA (DSP AMPLIFIER UNIT)

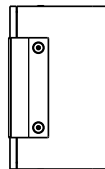|	
Output power	2 × 50 W / 8 Ω 2 × 100 W / 4 Ω
Factory settings	2 channels at 4 Ω, volume control enabled on front panel, loaded presets for media board application
THD	0.2 % nominal power output
Frequency range	–3 dB 20 Hz – 20 kHz
DSP Functions	In- and Output Levels, Limiter, 5-Band parametric Equalizer per channel, high- and low-pass filters with adjustable cut-off frequency and selectable slew rate, Delay (up to 60 ms per channel), I/O routing
Interface	Ethernet, web-based application (no additional software required for remote monitoring or control)
Audio switching (APD)	Threshold for change to operating mode: 5 mV, Change to Standby mode after 30 min with no input signal
Volume control	Front panel (removable control buttons and safety cover), Interface (PC, iOS, Android, password protection), individual/simultaneous remote control per channel with 10 k Ω potentiometer
Protection circuits	Overheating, short circuit, overload
Signal/Noise ratio	–100 dB under nominal output power (rated sound pressure level)
Inputs	2 balanced line inputs (Phoenix terminal type 3.5 mm, plug-in), 2 unbalanced line inputs (RCA)
Input sensitivity	balanced – 750 mV, unbalanced – 750 mV
Input impedance	balanced: 20 kOhm, unbalanced: 10 kOhm
Outputs	2 loudspeaker outputs (Phoenix terminal type 5.08 mm, plug-in)
Power supply	100 – 240 VAC, 50/60 Hz
Power consumption	Standby mode (Ethernet active): 1 W, 22 mA, 3.14 BTU, active waiting state: 12.5 W, 173 mA, 41 BTU, average power: 4 Ohm (audio signal, 1/3 power), 116 W, 395 BTU, maximum power: 4 Ohm (audio signal, peak), 384 W, 4.9 A, 1310 BTU
Cooling	convection cooled (without fans)
Dimensions (W × H × D)	216 × 45 × 343 mm (1 RU, 9,5")
Weight	2.2 kg
Optional accessories	rack mounting kit
Controls	Channel 1 Level, Chanel 2 Level, Power On/Off

DISPLAYS

Power (LED)	Blue (Lit = ON, flashing = Standby)
Clip CH1 & CH2 (LED)	Red
Signal CH1 & CH2 (LED)	Green

Manufacturer	Fohhn Audio AG
Model	MA-2.100
Contents	2 × MT–05.02 + 1 × MA–2.100 + 1 x cable set

MS-HM.02
TECHNICAL DRAWINGS MT-05.02

FRONT VIEW

SIDE VIEW

TOP VIEW

VIEW FROM BELOW

Diagram without brackets
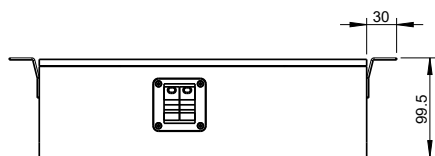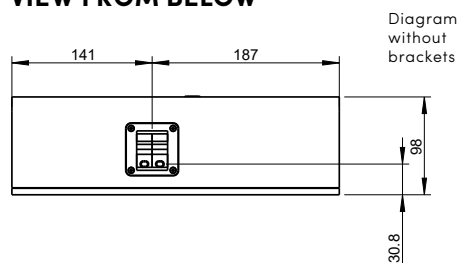
MS-HM.02
TECHNICAL DRAWINGS MA-2.100

FRONT VIEW

216
45

SIDE VIEW

343
45

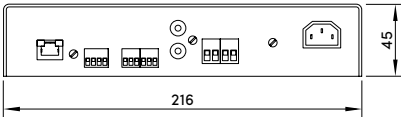**VIEW FROM BELOW**

216
45
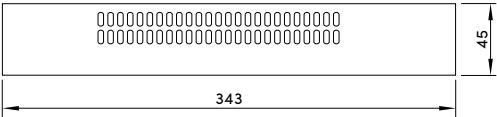
For more information on our amplifiers and loudspeaker systems,
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