MediaMatrix®
Miniframe 208nt
and
Miniframe 108nt

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STANDARD SPEC SHEETS NOT AVAILABLE
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Description

The MediaMatrix® Miniframe 208nt and Miniframe108nt are the most economical of Peavey's digital signal processing products with an integrated CPU. Both are software-based, integrated sound system design, control, and hardware platform that requires only microphones and their preamps, power amplifiers, and speakers to provide a complete and working system. The Miniframe 208nt and Miniframe 108nt are based on an open architecture that utilizes a modular computer mainframe including a power supply, a floppy-disk drive, a CD ROM drive, and a system controller board. The Miniframe 208nt comes with two DPU boards, and the Miniframe 108nt comes with one DPU board. Fully loaded, the Miniframe 208nt can provide all needed line-level signal processing for 32 audio input lines and 32 audio output lines, while the Miniframe 108nt accommodates up to 16 audio input lines and 16 output lines.

The Miniframe 208nt and Miniframe 108nt CPU is Intel Pentium MMX® based or equivalent, or better and the user's control and design interface GUI is Peavey's MWare® Lite running under Microsoft® Windows NT 4.0®. The MWare Lite software provides the user/designer the ability to design, wire, operate, control,

and troubleshoot a complete digital audio system in the software domain. The user/designer can create control panels and devices to provide solutions not possible on other DSP audio platforms.

The Miniframe 208nt and Miniframe 108nt accomodate a DPU board that employs Motorola® 56002 DSP chips and provides signal processing for up to 16 digital audio inputs and up to 16 digital audio outputs. The Miniframe 208nt accommodates a maximum of two DPU boards, while the Miniframe 108nt accommodates one DPU board. Due to extremely efficient code, an exceptional amount of processing can be accomplished while maintaining double-precision DSP filtering on each DPU board. The MM-DSP is the standard DPU board that interfaces to the Peavey MM-8800™ Series Break-out-Boxes (BoB's).

Features

- (Miniframe 208nt): Up to 32 inputs and 32 outputs
- (Miniframe 108nt): Up to 16 inputs and 16 outputs
- Over 600 software audio devices available in library
- Double-precision DSP filtering for accurate filter characteristics

- 19" rack-mount enclosure: 7" (17.78 cm) H x 19" (48.26 cm) W x 24" (76.20 cm) D space required
- 320-Watt PS/2 universal power supply
- Lockable front control panel
- Mouse and keyboard ports on front and back panels
- Two switches for keyboard lock and front door lock
- 3.5", 4.2 gigabyte hard disk drive
- 1.44 megabyte, 3.5" floppy disk drive
- 32X CD ROM drive
- Rugged, American-made steel construction
- Filtered positive airflow chassis cooling
- True color PCI video with 4 megabytes of video RAM and selectable resolutions from 640 x 480 to 1,600 x 1,200, plus refresh rates from 43 Hz to 200 Hz
- Network interface board included
- Passive backplane enables DPU board operation during CPU failure, and has a PIC/MG CPU slot for easy board swapping.

Applications:

- Cruise ships
- Multi-purpose facilities
- Auditoriums
- Schools
- Courts of law

- University campus buildings
- Performing arts centers
- Hotel meeting room complexes
- Houses of worship
- Conference centers
- Teleconferencing systems
- Civic centers
- Small Theaters

DIGITAL ELECTRONICS SPECIFICATIONS

System Controller Board:
Pentium MMX SBC (single board computer), or equivalent, or better
Processor: Pentium 233 MHz MMX, or equivalent, or better
Cache: 512 kilobytes or more
Memory: 32 megabytes or more EDO RAM

Drives:
- 3.5" 1.44 megabyte floppy disk drive
- 32X CD ROM
- 4.2 gigabyte hard disk drive

Video Board:
True Color, PCI video board with four megabytes of video RAM and selectable resolutions from 640 x 480 to 1,600 x 1,200, plus refresh rates from 43 Hz to 200 Hz. THe system is shipped set for 800 x 600 at 75 Hz.

Network Interface Board:
10/100BaseT fast Ethernet board with RJ-45 connector

Digital Audio Processing Boards:
Digital Audio I/O: 16 channels in / 16 channels out per DPU board
Processors: Four Motorola 56002 DSP chips per board
Digital Audio Bussing: 256 inter-board channels (between DPU boards), 256 inter-cell channels (between DSP chips)

Backplane:
Eight-slot passive backplane with (3) PCI slots and (5) ISA slots, (PIC/MG CPU slot for easy board swapping)

SOFTWARE SPECIFICATIONS

Operating System:
- Microsoft Windows NT 4.0 for system controller board
- Miniframe MWare Lite for sound system design, control, and diagnostics (operates under Microsoft NT 4.0)

Virtual Audio Devices (In Software Environment Libraries):
- **AES** digital audio input and output ports and level controls
- **AmpWare™** amplifier control and monitoring functions
- **Automatic mixers** from 2 to 32 input channels with direct outputs and linking capability
- **Bitmaps** to incorporate a graphic into the system control interface
- **BoB's** (Break-out-Boxes) analog input and output ports and level controls, with control ports for virtually any system control parameter
- **Blocks**: a graphic object that contains a child window with a sub-system or sub-function, etc.
- **Bump panels**: a graphic object for a control area, label, message, etc.
- **Comments**: a text entry area to type in any type of note or comment for explanation or clarification
- **Control modifiers** to limit the range of controls
- **Crossover Networks**: 2-, 3-, and 4-way using Bessel, Butterworth, and Linkwitz-Riley filter functions in appropriate slope-rates from 6 dB to 48 dB per octave in 6 dB increments
- **Delay lines**: 5, 50, and 200 ms, plus 3D position calculating delays, from 1 to 16 outputs
- **Diagnostics** for the system (compiled-in)
- **Diagnostics** for the system (non-compiled)
- **Dip panels:** a graphic object for a control area, label, message, etc.
- **Dynamics: AGC's**, **compressors**, **duckers**, **expanders**, **GAP Ambient Level Sensors™**, **noise gates**, and **limiters**
- **Equalization filters: all-pass filters**, **band-pass filters**, **CD horn lift**, **graphic EQ's**, **high-pass filters**, **low-pass filters, parametric filter sets**, **shelving filters**, and **tone controls**
- **Error indicators** for digital errors
- **Hardware failure indicators**
- **Labels**: graphic areas to type in any type of label, banner, etc.
- **Level controls: attenuators** with and without trim control (limits); **cross-faders**; **distribution amplifiers** with 2 to 16 outputs**; multi-channel attenuator groups** from 2 to 16 channels; **On-Off switches**; **panning attenuators** from 2 to 5 channels; **ramps** with adjustable ramp level change, ramp time, and ramp rate
- **Logic controls:**
Boolean with 2, 4, or 8 inputs
RPN: base integer RPN, **base logic RPN**, **base % RPN**, **control inverter**, **dual flip-flop**, **event counter**, or **flip-flop** functions

- **Meters: LED** with tiny and large signal-presence or overload indication, **Peak** and **RMS** meters in 4 appearances with parameter controls
- **Mixers** from 2 to 64 inputs and from 1 to 16 outputs
- **Presets**: up to 25 system-wide with more possible
- **Program launchers** to launch other programs from within MWare 3.0
- **RoomLink™** room combiners, using either automixers, mixers, or mixers with delay, for 3 to 15 rooms
- **Routers**: from 1 to 32 inputs and from 1 to 32 outputs, with or without
- **Processor** preconfigurations for 4 Peavey speaker systems
- **Sub-presets**: up to 25 for individual child windows with more possible and schedulable with a built-in event timer System mute to mute all outputs simultaneously
- **Test functions: DC-voltage generator**, **frequency-response probe**, **I/O probe**, **pink-noise generator**, **signal probe**, **sine-wave generator**, and a **white-noise generator**
- **Title blocks**: a graphic area to type in any type of title, etc.
- **Via** function to allow a signal to loop back up the signal chain without creating feedback oscillation
- **Wave file players** for 32, 44.1, and 48 kHz system sample rates at 100%, 50%, and 25% of that sample rate.

Notes: (1) New devices may be created and stored by the user in these libraries

(2) Any control parameters of any of the above devices may be controlled via the control ports on the BoB or CAB I/O's, and via third-party control software with a properly configured interface port.

GENERAL SPECIFICATIONS

Controls:
- Front door lock
- Keyboard lock
- System power switch
- Reset and Power LEDs
- Power Switch, Power and HDD LEDs
- Chassis slide rails

Connectors:
Front panel: (1) AT keyboard connector and (1) PS2 mouse connector
Rear panel: (1) Euro-style AC cord connector, (1) DB-25 parallel connector, (1) At keyboard connector, (1) PS2 mouse connector, and (2) COM port DB-9 connectors (1) DB-15 video connector (COM 1 and COM 2)

Dimensions:
  6.97" H x 19" W x 19.30" D
  (17.70 cm H x 46.26 cm W x 49.02 cm D)
  NOTE: A 24"-deep rack is required.

Net Weight w/o DPU Boards:
  40 lbs. (18.18 kg)

AC Power:
  320-Watt PS/2 universal power supply,
  UL, CSA, and CE listed
  Voltage: 100 to 120/200 to 240 VAC +/-
  10%, auto-selecting depending on
  source voltage
  Frequency: 50 to 60 Hz +/-5%

Maximum Power Consumption and Heat Generation:
  805 Watts, 2737 BTU/Hr. at 115 VAC
  fully loaded
  920 Watts, 3128 BTU/Hr. at 230 VAC
  fully loaded

Maximum In-rush Current:
  60A at 115 VAC, 35A at 230 VAC, 25° C
  cold start

Finish:
  Grey powder-coat painted steel

Accessories:
  • Detachable AC cord
  • Keys for front door, keyboard, and
    mouse
  • Microsoft Windows NT 4.0 CD
  • MediaMatrix Miniframe MWare Lite
    CD
  • Pentium MMX, or equivalent, or better
    SBC manual
  • Drivers for the 10/100BaseT fast
    Ethernet board and PCI video board

Product Agency Compliance Listings:
  UL, CUL, CE, and FCC part 15, A

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The MediaMatrix Miniframe 208nt/108nt signal processor shall be a software-based, integrated sound system design, control, and hardware platform that requires only microphones, microphone pre-amps, power amplifiers, and speakers to provide a complete and working system. It shall be based on an open architecture that utilizes a modular computer mainframe including a power supply, a floppy-disk drive, a CD ROM drive, a system controller board, and up to (Miniframe 208nt): two digital signal processing boards/(Miniframe 108nt): one digital signal processing board. The

Miniframe 208nt/108nt system shall provide all needed line-level signal processing for up to 32/16 audio input lines and 32/16 audio output lines. Systems of lesser capacity shall not be acceptable.

The Miniframe 208nt/108nt system's CPU shall be Intel Pentium MMX-based, or equivalent, or better and the user's control and design interface GUI shall be Peavey's Miniframe MWare Lite running under Microsoft Windows NT 4.0. The Miniframe 208nt/108nt system's software must provide the ability to design, wire, operate, control, and troubleshoot a complete digital audio system in the software domain. It shall allow the creation of custom control panels and devices to provide unique solutions not possible on other DSP audio platforms. Additionally, it shall allow third-party control of virtually any adjustable parameter in the system design. Systems not providing the above capabilities and not operating under Microsoft Windows NT 4.0's robust and stable operating system shall not be acceptable.

The Miniframe 208nt/108nt shall accommodate a digital audio board that orperates at 32 kHz, 44.1 kHz, and 48 kHz A/D and D/A sample rates. This DPU board shall provide signal processing for 32 digital audio inputs and 32 digital audio outputs. Systems not accommodating digital audio at multiple sample rates shall not be acceptable.

The Miniframe 208nt/108nt system shall have a CPU that is an Intel Pentium MMX, 233 MHz with 512 kB of cache and 32 MB of RAM or equivalent, or better. It shall have a 1.44 MB FDD, a 32X CD ROM drive, and a 10/100BaseT fast Ethernet interface board. Video shall be True color PCI video with 4 MB of video RAM and selectable resolutions from 640 x 480 to 1,600 x 1,200, plus refresh rates from 43 Hz to 200 Hz. The Miniframe 208nt/108nt shall have a 4.2 GB HDD. It shall also have a passive backplane that enables the digital audio to function during CPU failure and a PIC/MG CPU slot for easy board swapping. The backplane shall have (3) PCI slots and (5) ISA slots to enable maximum flexibility in system configuration. Systems of lesser CPU and video capabilities, or lacking the above drives or passive backplane and its flexible capacity shall not be acceptable.

The Miniframe 208nt/108nt shall accommodate up to (2)/(1) audio DPU boards. Each board shall provide digital audio signal processing for 16 input

channels and 16 output channels. A 256-channel digital audio bus shall allow processing resources to be shared between DPU boards and DSP chips. Systems using hardware restricted digital audio paths shall not be acceptable.

The Miniframe 208nt/108nt system shall operate under the Microsoft Windows NT 4.0 operating system for stable operation and increased network access security. The sound system design, control and diagnostics software shall be Peavey MWare Lite, which allows the creation of custom control panels and devices to provide unique solutions not possible on other DSP audio platforms.

The virtual audio devices available for sound system creation shall include the following:
  • **AmpWare**™ amplifier control and
    monitoring functions
  • **Automatic mixers** from 2 to 32 input
    channels with direct outputs and
    linking
  • **AES** digital audio input and output
    ports and level controls capability
  • **Bitmaps** to incorporate a graphic into
    the system control interface
  • **BoB's** (Break-out-Boxes) analog input
    and output ports and level controls,
    with control ports for virtually any
    system control parameter
  • **Blocks**: a graphic object that contains
    a child window with a sub-system or
    sub-function, etc.
  • **Bump panels**: a graphic object for a
    control area, label, message, etc.
  • **Comments**: a text entry area to type
    in any type of note or comment for
    explanation or clarification
  • **Control modifiers** to limit the range of
    controls
  • **Crossover Networks**: 2-, 3-, and 4-
    way using Bessel, Butterworth, and
    Linkwitz-Riley filter functions in
    appropriate slope-rates from 6 dB to
    48 dB per octave in 6 dB increments
  • **Delay lines**: 5, 50, and 200 ms, plus
    3D position calculating delays, from 1
    to 16 outputs
  • **Diagnostics** for the system (compiled-in)
  • **Diagnostics** for the system (non-
    compiled)
  • **Dip panels:** a graphic object for a
    control area, label, message, etc.
  • **Dynamics: AGC's**, **compressors**,
    duckers, **expanders**, **GAP Ambient
    Level Sensors**, **noise gates**, and
    limiters

  • **Equalization filters: all-pass filters**,
    band-pass filters, **CD horn lift**,
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pass filters, **parametric filter sets**, **shelving filters**, and **tone controls**
- **Error indicators** for digital errors
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- **Labels**: graphic areas to type in any type of label, banner, etc.
- **Level controls: attenuators** with and without trim control (limits); **cross-faders**; **distribution amplifiers** with 2 to 16 outputs**; multi-channel attenuator groups** from 2 to 16 channels; **On-Off switches**; **panning attenuators** from 2 to 5 channels; **ramps** with adjustable ramp level change, ramp time, and ramp rate
- **Logic controls:**
  Boolean with 2, 4, or 8 inputs
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- **Meters: LED** with tiny and large signal-presence or overload indication,
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- **RoomLink** room combiners, using either automixers, mixers, or mixers with delay, for 3 to 15 rooms
- **Routers**: from 1 to 32 inputs and from 1 to 32 outputs, with or without
- **Processor** preconfigurations for 4 Peavey speaker systems
- **Sub-presets**: up to 25 for individual child windows with more possible and schedulable with a built-in event timer
- **System mute** to mute all outputs simultaneously

- **Test functions: DC-voltage generator**, **frequency-response probe**, **I/O probe**, **pink-noise generator**, **signal probe**, **sine-wave generator**, and a **white-noise generator**
- **Title blocks**: a graphic area to type in any type of title, etc.
- **Via** function to allow a signal to loop back up the signal chain without creating feedback oscillation
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Notes: (1) New devices may be created and stored by the user in these libraries

(2) Any control parameters of any of the above devices may be controlled via the control ports on the BoB or CAB I/Os, and via third-party control software with a properly configured interface port.

Other software packages not offering the stability, security or flexibility of these operating system and design/control/diagnostics packages shall not be acceptable. The Miniframe 208nt/108nt system shall have the following front-panel controls and connectors: Front door and keyboard locks, system power and reset switches; power and HDD LEDs; AT keyboard and PS2 mouse connectors. On the rear panel, it shall have a Euro-style AC cord connector, a DB-25 parallel connector, an AT keyboard connector, a PS2 mouse connector a DB-15 video connector, and two COM port DB-9 connectors for COM 1 and COM 2. The Miniframe 208nt/108nt shall have a 320-Watt PS/2 universal power supply,

UL, CSA, and CE listed. It shall operate on AC power at either 50 or 60 Hz +/-5%, from 100 to 120 VAC or 200 to 240 VAC +/-10% auto-selecting depending on the source voltage. The power supply shall consume no more than 805 Watts and produce no more than 2737 BTU/Hr. at 115 VAC fully loaded, or consume no more than 920 Watts and produce no more than 3128 BTU/Hr. at 230 VAC fully loaded. It shall draw a maximum in-rush current of no more than 60A at 115 VAC and no more than 35 A at 230 VAC.

The Miniframe 208nt/108nt shall be 6.97" (17.70 cm) high by 19" (46.26 cm) wide by 19.03" (49.02cm) deep and requires a 24"-deep rack. It shall weigh 40 lbs. (18.18 kg) w/o DPU boards. It shall be finished in grey powder-coat painted steel. It shall be supplied with the following accessories: a detachable AC cord, rack slides, keys for the front door and keyboard lock, Microsoft Windows NT 4.0 CD, MediaMatrix Miniframe MWare Lite CD, Pentium MMX SBC, or equivalent, or better manual, and drivers for the 10/100BaseT fast Ethernet board and PCI video board.

The Miniframe 208nt/108nt shall be in compliance with the standards of and listed by UL, CUL, CE, and FCC part 15, A. The miniframe system shall be the Peavey MediaMatrix Miniframe 208nt/108nt.

Note: Microsoft® Windows NT 4.0® is a registered trademark of Microsoft Corporation, and Motorola® is a registered trademark of Motorola®, Inc. Pentium MMX® is a registered trademark of Intel.

1 YEAR LIMITED WARRANTY
NOTE: For details, refer to the warranty statement. Copies of this statement may be obtained by contacting
Peavey Electronics Corporation
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