



DPM 100 /100H

Features

- Ten digital inputs for 5.1 and 7.1 soundtracks and HI/VI
- HDMI input/output for non-sync sources (DPM 100H)
- Dolby® Digital Plus® and DTS®-HD
- Network control and monitoring via SNMP
- Serial automation control via RS-232
- Analog Inputs for film processors, non-sync and Mic/Line
- Master volume and full 1/3 Octave Graphic EQ on all channels (except subwoofer)
- * Booth Monitor loudspeaker and headphone jack
- Digital Loudspeaker Crossovers — three passive or bi-amp screen channels
- Compatible with all existing DCA amplifiers — thousands of DCA-equipped screens are ready for full network monitoring and control
- Multiple Bypass modes routes audio around failed components to insure that the show will go on
- Intrinsic Correction™ for DCS loudspeakers for optimal “out of box” performance and reduced set-up time
- Continued development of software and firmware will add new capabilities to the existing hardware with easy firmware updates



DPM Series processors are a powerful solution for today's D-Cinema audio systems.

The DPM builds on the legacy of QSC's DCM and DCP products to provide all signal processing and monitoring functions for Digital Cinema in a single integrated system. Designed to be used with QSC's Digital Cinema Amplifiers (DCA) and featuring advanced Intrinsic Correction™ settings for QSC's Digital Cinema Speakers (DCS), the DPM optimizes loudspeaker performance while simplifying cinema sound system wiring and configuration. The DPM is configurable for passive and bi-amp operation and 2 or 4 surround channels (5.1 or 7.1).

Digital Signal Processing

The DPM 100 digital signal processing capability outperforms traditional analog crossovers and equalizers for optimized speaker performance. Crossover frequency, 1/3 octave graphic EQ, parametric equalization, polarity, delay and gain can be precisely adjusted for each speaker in your system. Passive or active 2-way crossovers are available for three screen channels. QSC's proprietary Intrinsic Correction adjusts for the intrinsic behaviors of loudspeakers, removing any anomalies from the equation of factors that affect measured response and, ultimately, the quality of sound. The result is optimal “out of the box” performance while minimizing on-site room tuning.

Less Wiring, Faster Set-up

The DPM 100 greatly simplifies system wiring and set-up, significantly reducing installation time and labor cost. Digital input to the DPM 100 is provided via RJ45 cables from the D-Cinema server or IMB. Connections to DCA amplifiers for input and monitor signals are made through QSC DataPort VGA-style cables. Set-up is accomplished by a front panel USB cable connection, using a menu-driven, PC-based software program for configuration. The program includes a speaker data file that lists default parameters for popular QSC cinema speaker models.

Advanced Monitor Functions

In addition to audio monitoring of amplifier inputs and outputs, DPM 100 includes QSC's exclusive “load fault” detection. It monitors all amplifier outputs and indicates any opens and shorts in the loudspeakers, providing confirmation that all amplifier outputs are functioning properly. In addition, the DPM 100 detects all amplifier clipping, protect modes and heat sink temperature for reporting via SNMP or Ethernet.

DPM 100 /100H Details

Specifications

System Details	DPM 100 /100H
Dimensions (HxWxD)	3.5"(2 RU) x 19" x 15"
Line voltage requirements	100 VAC – 240 VAC, 50/60 Hz
Accessories included	6 ft UL/CSA line cord, Connector Kit
Front Panel Controls and Indicators	
Monitor Volume/parameter adjust	Rotary encoder
LCD	128 x 64 bit Monochrome LCD
Master Mute	Push button
Master Volume	Rotary encoder
USB Type B port	Config and management interface
Monitor output	3.5 mm TRS
Rear Panel Connectors	
Network RJ45	10/100 Mbps network management
Automation Inputs	RJ45 – 6 contact closure inputs
RS232	DB-9 Serial Interface
Channels 1-8 AES/EBU Inputs	RJ45
Channels 15-16 AES/EBU Inputs	RJ45
SPDIF Input	RCA — Stereo digital audio interface and Lt/ Rt Matrix
Analog Inputs (1-8)	DB-25
Line Inputs	3.5 mm TRS — Stereo Left and Right and Lt/ Rt Matrix
Mic/Line input	XLR — Mic (+ phantom pwr) or line level
HDMI input/output (DPM 100H)	Type A female connectors
DataPort connectors	HD-15 (9) — QSC amplifier interface
H.I./V.I. output	5-pin Euro-style (x1) – common GND
Relay outputs	3-pin Euro-style (x2) – max 30 VDC
Monitor Speaker	
Speaker	2"x 3.5" full-range
Audio Performance	
A/D conversion	24-bit delta-sigma, 48 kHz
Frequency response	20 Hz to 20 kHz (+/- .5dB)
Main Analog Input	
Connector	DB25F - 8 channel
Input stage type	Active balanced input
Input impedance	20k Ohms
Max analog input level	+14.2 dBu (4.0 Vrms)
Mic/Line Input (XLR)	
Input stage type	Active balanced input

Input impedance	2.2k Ohms
Max analog input level	26 dBu
Input gain	0 to 60dB in 1 dB steps
Phantom power voltage	15V

Stereo Line Inputs

Connector	3.5mm TRS mini jack
Input stage type	Unbalanced input
Input impedance (4dBu sens)	> 10k Ohms
Max analog input level (4dBu sens)	14 dBu (4.2 Vrms)
Input impedance (-10dBV sens)	2.7k Ohms
Max analog input level (-10dBV sens)	0 dBV (1 Vrms)

DataPort Outputs (HD15)

Max output level	14 dBu
Dynamic range (unweighted)	> 109 dB

HI/VI Outputs

Connector	5-pin Euro-style with common GND
Output stage type	Balanced output
Max output level	18 dBu (adjustable)

Monitor Headphone Output

Connector	Front Panel 3.5mm mini jack
Output stage type	Unbalanced output
Max output level	21 dBu
Dynamic range (unweighted)	> 109 dB

AES/EBU Digital Inputs (RJ45)

Input stage type	Balanced input
Input sample rate	48 kHz or 96 kHz

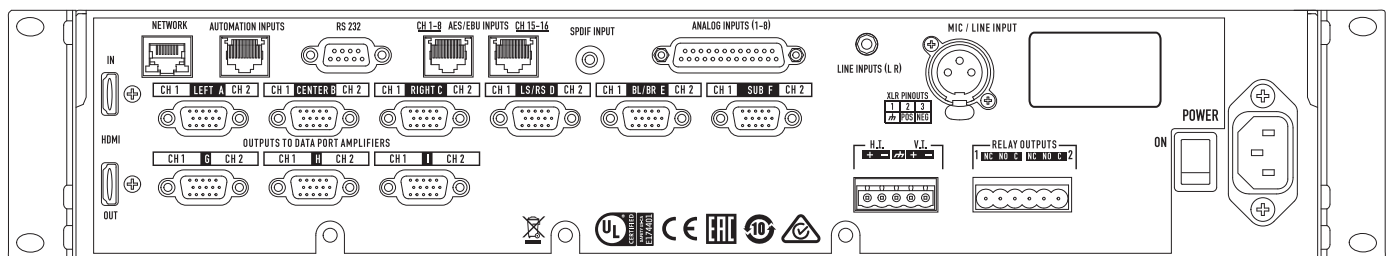
SPDIF Digital Inputs (Mono RCA)

Input stage type	Unbalanced input
Stereo PCM or Dolby Digital Plus (DPM100H only)	

Other

Relay outputs (2)	3-pin Euro-style
	Normally open (NO), normally closed (NC), and common
	Max 30 VDC @ 1A
Automation inputs (RJ45 - 6 GPI)	Max input voltage 5V (3.3V typical)
	TTL compatible dry contact closure

As part of QSC's ongoing commitment to product development, specifications are subject to change without notice.



DPM 100 /100H BACK VIEW



1675 MacArthur Boulevard • Costa Mesa, CA 92626 • Ph: 800/854-4079 or 714/957-7100 • Fax: 714/754-6174

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