

Digital cinema audio processor covering 6 to 16 balanced outputs and 5.1 / 7.1 / 16-channel formats, handling channel assignment, electronic crossover and level calibration for screen channels, surrounds and subwoofers¹



01 FEATURES • Performance | ▲ Engineering | ■ Economy & Maintenance

- Full-function matrix routing: the sound-field input matrix assigns any input channel freely to any output channel.
- Built-in electronic crossover (HPF / LPF, 12 / 24 / 36 dB/oct selectable) — no external crossover needed for active-crossover screen channels.
- Independent delay and level per output channel (–12 to +12 dB) plus 31-band graphic and parametric EQ, for channel alignment and room correction.
- ▲ Accepts AES3, I²S, SPDIF, AUX, Non-Sync and analog inputs, connecting directly to a digital cinema server or a conventional decoder.
- ▲ TFT colour panel with rotary encoder; remote control and host-software control over USB and TCP/IP.
- ▲ AC 100–240 V wide-range supply; standard 19-inch rack mounting at 2U.
- One platform covering 6 to 16 outputs keeps multi-auditorium configuration consistent; take only the channel count the room needs, avoiding the extra cost of unused capacity.

02 OVERVIEW

The DP700 / DP900 / DP1600 / DP2500MK3 are four channel counts on one processing platform, handling channel assignment, electronic crossover and level calibration downstream of a decoder or server. All four share the same matrix routing, EQ, crossover and level functions, differing in channel count, supported channel formats and connectors.

The DP2500MK3 adds eight XLR balanced inputs and two banks of eight XLR balanced outputs, plus three-in-one-out HDMI, so a conventional decoder with analog outputs can be connected directly; the other models are primarily AES3, I²S and SPDIF digital input. All four provide independent delay and level per output channel for inter-channel time alignment and room response correction.

03 APPLICATIONS

Digital cinema audio chain · Channel assignment and electronic crossover · SPL and delay calibration · Multi-auditorium configuration

04 SPECIFICATIONS Four models · one processing platform; unlisted figures are common to all four

MODEL	DP700	DP900	DP1600	DP2500MK3
SUPPORTED CHANNEL FORMATS	5.1-channel	5.1 / 7.1-channel	5.1 / 7.1 / 16-channel	5.1 / 7.1 / 16-channel
INPUT CHANNELS	AES3 · I ² S · SPDIF · AUX · Non-Sync · Analog			
OUTPUT CHANNELS	6 balanced outputs + monitor out	8 balanced outputs + monitor out	16 balanced outputs + monitor out	16 balanced outputs + HDMI
INPUT CONNECTORS	RJ45 · 6.35 mm mic · RCA · DB25	RJ45 · 6.35 mm mic · RCA · DB25 · Toslink · Coaxial	RJ45 · DB25 · 6.35 mm mic · RCA · Toslink · Coaxial	RJ45 · 6.35 mm mic · Toslink · HDMI-A × 3 · XLR-F receptacle × 8
OUTPUT CONNECTORS	Phoenix terminal block (male) · 3.5 mm	Phoenix terminal block (male) · 3.5 mm	Phoenix terminal block (male) · 3.5 mm	XLR-M receptacle × 8 × 2 · HDMI-A × 1 · 3.5 mm
FREQUENCY RESPONSE / SAMPLE RATE	20 Hz–20 kHz (≤ 0.5 dB) · 44.1 / 48 / 96 kHz · 16 / 24 bit			
SIGNAL-TO-NOISE RATIO	105 dB (A-weighted)			
TOTAL HARMONIC DISTORTION THD+N	≤ 0.008% (96 kHz)			
EQUALIZATION / CROSSOVER	31-band graphic + parametric EQ (adjustable Q) · LowShelf / HighShelf; HPF / LPF, 12 / 24 / 36 dB/oct selectable			
DELAY / LEVEL ADJUSTMENT	Independent delay and level per channel (–12 to +12 dB)			
MATRIX ROUTING	Sound-field input matrix with free I/O routing; multiple scene presets, store and recall			
SOFTWARE CONTROL	Remote control and host-software control over USB and TCP/IP			
DISPLAY / CONTROL	TFT colour panel and rotary encoder			
POWER SUPPLY	AC 100–240 V, 50 / 60 Hz wide range			
RACK HEIGHT	2U (88 mm)	2U (88 mm)	2U (88 mm)	108 mm
DIMENSIONS W×H×D (mm)	W482 × H88 × D318	W482 × H88 × D318	W482 × H88 × D318	W482 × H108 × D294
NET WEIGHT	4.2 kg	4.4 kg	4.5 kg	8.5 kg

SPECIFICATION NOTES

- ¹ Outputs are line-level analog signals and must be driven by power amplifiers; the number of output channels determines how many amplifier channels can be driven. Confirm the configuration against the auditorium's actual screen channels, surrounds and LFE, extending with additional units if required. Figures shown without a model split are common to all four models.
- ² DP700 / DP900 / DP1600 have no XLR inputs; only the DP2500MK3 adds 8 XLR-F balanced inputs and two banks of 8 XLR-M balanced outputs, and its chassis is 108 mm high against 88 mm.
- ³ Equalization, delay and level settings should be established from on-site measurements. Rack installation must leave the front and rear airflow paths clear, and the temperature rise inside the rack must stay within the equipment's permitted ambient range (operating temperature 0–50 °C).
- ⁴ ▲ Parameters on this page are taken from the R&D-revised specification workbook. Where a later R&D revision differs, the latest revision prevails.