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DLM 26

Digital Loudspeaker Management



The DLM 26 is a DSP based 2 input x 6 output digital loudspeaker management processor, ideally suited for fixed installations and live events. It combines the functions of a multitude of conventional products in a compact 1 U unit with extensive PC remote control capabilities. Features superb audio quality with premium hi-end AKM5392 24bit A/D converters and AKM4396 24bit D/A converters, carefully optimized double precision signal processing coupled with 24bit conversion ensure a dynamic range >110dB; the unit can work in "standard mode" or in "DCL mode". The first mode permits to configure the crossover in 2 x 2 way + sub, 2 x 3 way or 6 way, the input L,R, L+R are freely assignable to each output.

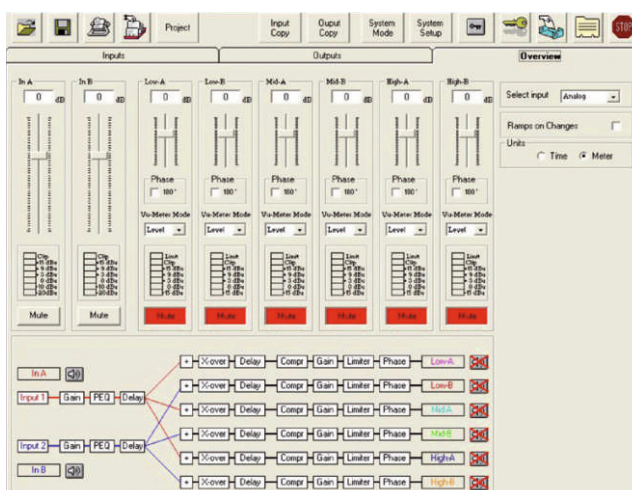
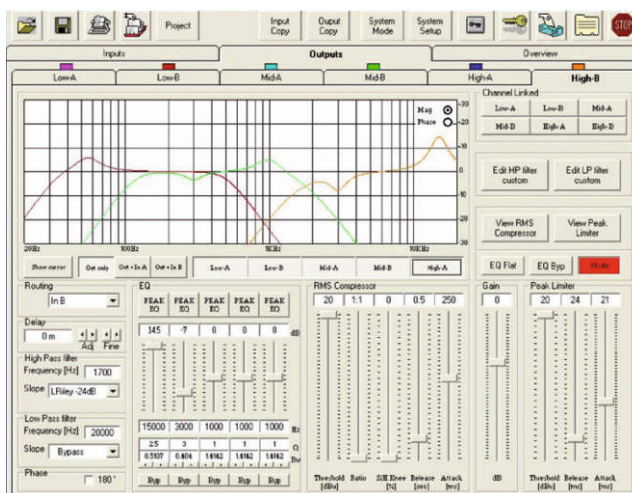
In DCL mode the unit can be configured in 3 CH DCL, 2 CH DCL + 2 CH standard, 1 CH DCL + 4 CH standard. DCL mode means double compressor limiter, each DCL channel have a double band limiter and compressor with assignable LO/HI split frequency. Each input has 5 fully configurable filters, a delay of 288.66ms max in step of 6.8 us, gain.

Each output has 4 fully configurable filters, a delay of 288.66ms max in step of 6.8us, gain, phase, LO-pass / HI pass crossover from 6 to 24dB oct with standard or custom Q, RMS compressor with soft knee and peak limiter.

The 2 input levels are displayed by rows of 6 level led + 1 clip led, the 6 output levels are displayed by rows of 5 level led + 1 clip led + 1 limiter led. The unit has 2 analog inputs, a stereo digital SPDIF input, and 6 analog outputs. Linking functions between inputs and linking functions between outputs are available.

The PC SW for the remote control via RS485 or USB is allowing to connect in net up to 32 units and is allowing to control full parameters of the processor, to show the phase of the filter setting and to adjust graphically the RMS compressor and the peak limiter. The comprehensive standard specification also include up to 64 memories with security lockout and two password level settings.

PC software screenshots



Features

- Hi-pass / Lo-pass / Shelving custom Q second order filters
- RMS compressor and Peak limiter on each output channel with time constant and algorithm optimized for speaker thermal and mechanical protection while maximizing the output with no audible distortion
- Input channel L, R, or L+R freely assignable to each output channel
- Double compressor limiter mode (DCL) with two band RMS compressor and Peak limiter with adjustable HP / LP split frequency and separate parameter adj. This is an exclusive and very useful feature in general purpose digital processors
- All Pass first and second order filters useful for cardioid sub configurations, very precise phase crossover alignment, special pattern control array, alignment between different speakers and systems



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Inputs / Outputs	XLR balanced +20dbu max level	
Total memories	64	
THD+N	0.001% at 1kHz 0dBu	
S/N	>110dB	
Frequency Response	20Hz - 20kHz @ -0.5db	
A/D and D/A Resolution	24bits	
Filters (5 each in/out)		
Type	Peaking EQ, Hi-Shelv 1/2/Q, Lo-Shelv 1/2/Q, HPF 1/2/Q, LPF 1/2/Q, All Pass 1/2, Band pass, Notch	
Orders	symmetrical Bell or High/Low Shelving up to second order	
Filter gain	-15dBu / +15dBu by 0.5dBu resolution steps	
Centre frequency	selectable with a 1/24th of octave resolution steps 20Hz / 20kHz	
Filter Q/BW	Q from 0.05 up to 3 by 0.05 resolution steps	
Compressors		
Threshold:	-10 / 20dbu	
Ratio:	1:1 / 32:1	
Soft Knee:	0 / 100%	
Attack Time:	10ms / 4s	
Release Time:	0.1 / 3s	
Limiters		
Threshold:	-10 / +20dbu	
Attack time:	2ms / 50ms	
Release Time:	20ms / 200ms	
High pass and Low Pass Filters	From 1st order (Butterworth -6dB/Oct) up to 4th Order (Butterworth, Linkwitz or Bessel -24dB/Oct), Custom Q	
Filter's setting step:	1/24th of octave	
Maximum Delay:	288.66ms by 6.8us increment/decrement step, on each Input and Output channel	
Net Dimensions (WxHxD)	mm inch	480 x 40 x 220 - 19" (1U rack) 18.8x1.5x8 - 19" (1U rack)
Net Wheight:	Kg Lb	2.8 6.1
Transport Dimensions (WxHxD)	mm inch	530x100x310 20.8x3.9x12.2
Transport Weight	Kg Lb	3.9 8.6
Voltage	90 - 240Vac 50/60Hz	
Power	30VA	

Specifications subject to change without notice.