DLM26

Digital Loudspeaker Management

The DLM26 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 1U unit with extensive PC remote control capabilities.

Features superb audio quality with premium hi-end AKM5392 24bit A/D converters and AKM 4396 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 2x2 way + SUB, 2x3 way or 6way, the input L, R, L+R are freely assignable to each output.

In DCL mode the unit can be configured in 3ch DCL, 2ch DCL + 2ch standard, 1ch DCL + 4ch 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 6.8us, 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.

Special and new 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

FBT

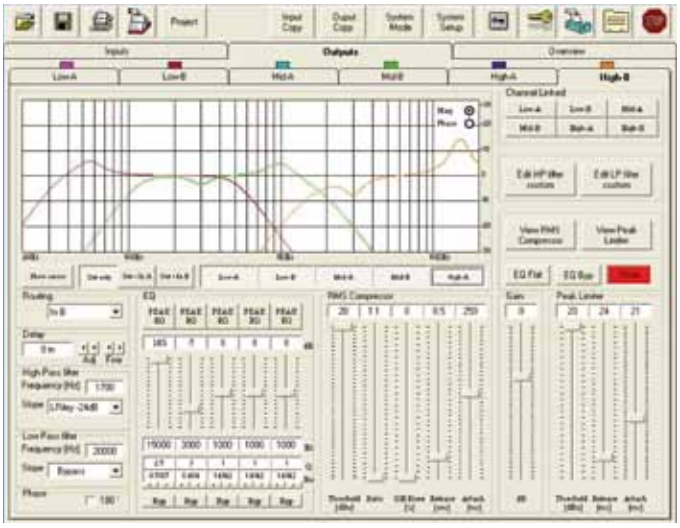
DLM26

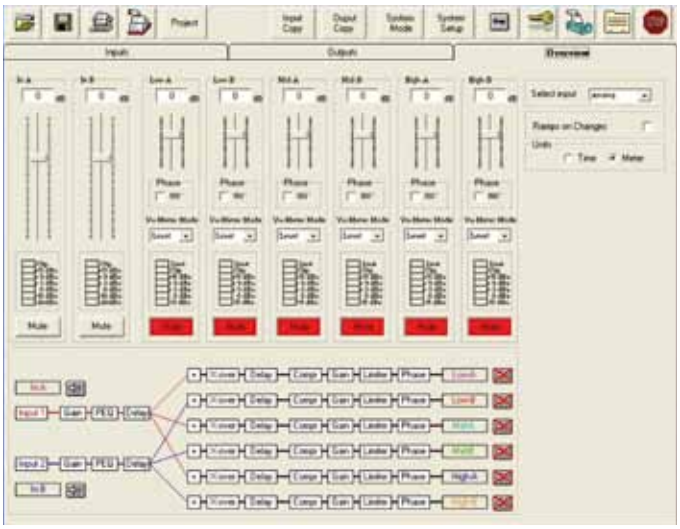
Rear panel

Specifications

Inputs / Outputs	XLR balanced +20dBu max level
Total memories	64
THD+N	0.001% at 1kHz 0dBu
S/N	>110dB
Frequency Response	20Hz and 20kHz @ -0.5dB
A/D and D/A Resolution	24bits, 96 bits Process Resolution
Filters (5 each in/out)	
Type	Peaking EQ, Hi-Shelving 1/2/Q, Lo-Shelving 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 to +15dBu by 0.5dBu resolution steps
Centre frequency	selectable with a 1/24th of octave resolution steps from 20Hz up to 20kHz
Filter Q/BW	Q from 0.05 up to 3 by 0.05 resolution steps
Compressors	
Threshold	-10 to +20dBu
Ratio	1:1 to 32:1
Soft Knee	0 to 100%
Attack Time	10ms to 4s
Release Time	0.1 to 3s
Limiters	
Threshold	-10 to +20dBu
Attack time	2ms to 50ms
Release Time	20ms to 200ms
High pass and Low Pass Filters	
HPF	1st to 4th Order (Butterworth, Linkwitz or Bessel -24dB/Oct), Custom Q
LPF	1st order to 4th Order (Butterworth, Linkwitz or Bessel -24dB/Oct), Custom Q
Filter's setting step:	1/24th of octave
Delay & Gain	
Maximum Delay	288.66ms by 6.8us increment/decrement step, on each Input and Output channel
Phisical	
Net Dimensions (WxHxD)	480x40x220 mm - 19" (1U rack) 18.8x1.5x0,8 inch - 19" (1U rack)
Net Wheight	2.8 Kg / 6.1 lb
Transport Dimensions (WxHxD)	530x100x310 mm 2.08x0.39x1.22 inch
Transport Wheight	3.9 Kg / 8.6 lb
Power Requirements	
Voltage	90 - 240Vac 50/60Hz
Power	30VA

PC software screenshots





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