

DLMS4080 4 Input / 8 Output Digital Loudspeaker Management System



Features:

- 4 Inputs / 8 Output Configuration
- Complete Independent Gain, Delay & Phase Control of each Input & Output
- 2 Tunable Crossovers on each Input & Output (24 Total)
- 8 Tunable Parametric EQ Filters on each Input (32 Total)
- 31-band Graphic EQ on each Input
- 8 Additional Tunable EQ Filters on each Output (Selectable Parametric, Hi/Low Shelving, All Pass - 64 Total)
- USB, RS232 and Ethernet Connectivity
- Pro Control PC Based Visual Editing Software Included
- Full Front Panel Parameter Control
- Security Lockout

Description:

The DLMS4080 Digital Loudspeaker Management System handles total control of the Elevation Series. The four Inputs and eight outputs of the DLMS4080 can be routed in multiple configurations to meet any system requirement. Full control of the system can be done in real time from the front panel or with the intuitive PC based graphic user interface software via the on-board RS232, Ethernet or USB port when more complex system control is required.

Operation and System Control

Every input on the DLMS4080 has individual gain, delay and polarity control per channel as well as a fully tunable 8-filter parametric EQ, a separate 31-band graphic EQ, a 2-pole tunable crossover and channel compression.

Each of the 8 processor output channels offer fully independent input source selection, independent gain, delay and polarity control, an additional 8-filter EQ (selectable parametric, hi & lo shelving or All Pass) per channel, tunable 2-pole crossover and a 40:1 output limiter. Precise frequency control is achieved down to a 1Hz resolution.

Multiple system setups can be stored in 30 onboard memory locations and the DLMS4080 has an onboard lockout for full system security when used in installation applications.

General Specifications:

Type	4 Input / 8 Output Digital Speaker Processor
Audio Connectors	3-pin XLR Balanced (All inputs and Outputs)
Computer Interface Options	USB / RS-232 / Ethernet CAT-5
Crossover Filters	24 (2 per Input / Output)
Programmable EQ Filters	96 (8 per Input/Output) Parametric, Shelving and All Pass
Graphic EQ	4 (1 per Input) 31-band 2/3 Octave
Input Compressors	4 (1 per Input) Tunable 1:1 to 40:1 Ratio
Output Limiters	8 (1 per Output) 40:1 Ratio
Delay	12 (1 per Input / Output) 0 to 650ms
Gain	-40db to +15dB in 0.25dB steps
Frequency Response	+/- 0.1dB (20Hz - 30kHz)
Dynamic Range	115dB Type (unweighted)
Maximum Input/Output Level	+20 dBu
Number of Programs	30
Security Lock	Yes
Display	2x16 Character Backlit LCD
Level Meters	12 (1 per Input / Output) 5-segment LED
Front Panel Buttons	Mute/Edit Controls / Menu Controls
Dial Encoder	Embedded Thumbwheel
Power	90-240VAC (50/60Hz) / Standard IEC Connector
Dimensions (in)	19 x 1.75 x 9
Dimensions (mm)	48.5 x 4.5 x 23
Weight (lbs / kg)	10 / 4.6

Specifications subject to change without notice.



DLMS4080

4 Input / 8 Output Digital Loudspeaker Management System

VTC ProControl System Software

Direct connection to any WindowsXP or Vista based PC can be achieved via integrated RS232, Ethernet or USB inputs on the DLMS4080 (drivers included). The intuitive VTC ProControl software shipped with the processor allows complete control of all parameters of the VTC DLMS4080 processor from any PC or laptop. Ideal for setting up a touring system or tuning and aligning a complex multiple array installation, the VTC ProControl software allows complete visual editing of all gains, crossover points, limiters, EQs and delay settings in real time.



Detailed Specifications:

Input and Outputs

Input Impedance	>10k ohms
Output Impedance	50 ohms
Maximum Input/Output Level	+20 dBu
Input/Output Type	Electronically balanced XLR Connectors

Audio Control Parameters (x12 - 1 per Input & Output)

Gain	-40dB to +15dB in 0.25dB steps
Polarity	+/- 180°
Delay	Up to 650ms per Input / Output

Input Parametric Equalizers Filters (x32 - 8 per Input)

Type	Parametric, Hi-Shelf, Lo-Shelf
Gain	-30dB to +15dB in 0.25dB steps
Bandwidth	0.02 to 2.50 octaves (Q=0.5 to 72)

Input Graphic EQ (x4 - 1 per Input)

Type	31-band
Gain	-30dB to +15dB
Bandwidth	1/3 Octave

Input Compressors (x4 - 1 per Input)

Threshold	-20 to +20dBu
Ratio	1:1 to 40:1
Attack	0.3 to 100ms
Release	2 to 32X the attack time

Input & Output Crossover Filters (x24 - 2 per Input & Output)

Filter Types	Butterworth, Bessel, Linkwitz-Riley
Slopes	6 to 48 dB/Octave

Output Limiters (x8 - 1 per Output)

Threshold	-20 to +20dBu
Ratio	40:1
Attack	0.3 to 100ms
Release	2 to 32X the attack time

Processor Audio Performance

Frequency Response	+/- 0.1dB (20Hz - 30kHz)
Dynamic Range	115dB typical (unweighted)
CMMR	>60dB (50Hz - 10kHz)
Crosstalk	<-100dB
Distortion	0.002% (1kHz @ +4dBu)
Sampling Rate	96kHz / 24 bit

Connectors

Audio Connectors	3-pin XLR
USB	Type B
RS-232	DB-9
Ethernet	RJ-45 CAT-5

System Parameters

Number of Programs	30
Program Names	12 character length
Delay Units	ms, ft, m
Frequency Modes	36 steps/octave, 1Hz resolution
Security Lock	Lock/Unlock
Channel Names	6 character length

EASE Focus Aiming Software

Features:

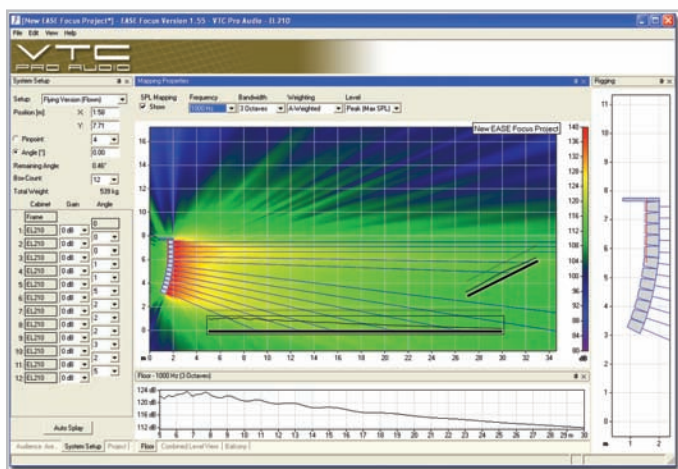
- System Aiming with a color mapped display
- Detailed rigging display with a full printed report
- Displayed SPL's over audience areas
- COM and tilt angle calculation for selected audience locations
- Interactive frequency response cursors and EQ capabilities
- Auto spray functions

VTC ProAudio has partnered with Software Design Ahnert GmbH to offer its EASE Focus acoustic simulation software free of charge to users of VTC Elevation Series line array systems.

EASE Focus software allows modelling of an acoustic source in a simple two-dimensional view to assist optimizing a system for any particular venue. It predicts the direct field created by the complex addition individual loudspeakers or array components in a large system and allows system installers can use this package to determine the proper flying or mounting points and the correct dispersion angles for the enclosures.

Ease Focus provides accurate predictions of line array performance using the same acoustic engine as Ease, the industry standard software for simulating and designing acoustic environments and sound systems.

The purpose of EASE Focus is to provide the end user with a tool that allows effective prediction of the array performance in any given venue.



Ease Focus provides a range of vital acoustic calculations including:

- SPL in 1/3rd octaves, octaves, 3 octaves, broadband
- RMS, program and peak levels
- Flat and A-weighted levels
- Air attenuation according to ISO 9613
- Amplitude shading
- Optimized SPL calculation routines for interactive aiming

VTC ProAudio has partnered with Software Design Ahnert GmbH to offer its EASE Focus acoustic simulation software free of charge to users of VTC Elevation Series line array systems.

The program is based on the Microsoft.NET platform, and requires .NET Framework 1.1. Ease Focus runs best in a Microsoft Windows XP/2000 environment, but will also run under earlier Windows versions provided they have the latest system updates

The scientific base of EASE Focus stems from EASE, the professional electro- and room acoustic simulation software developed by Acoustic Design Ahnert (ADA), Berlin, Germany. EASE Focus software is created by ADA's sister company, Software Design Ahnert GmbH (SDA) Berlin, Germany.

EASE Focus Aiming Software is publicly available and it is free to download from the VTC website, vtcproaudio.com.

