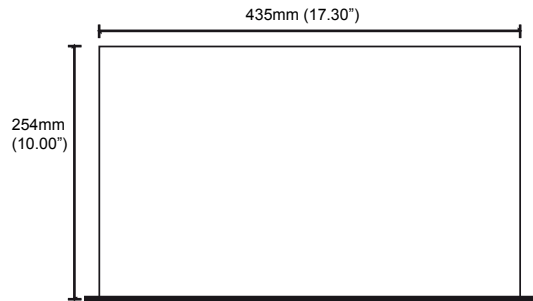
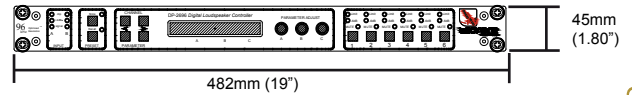


DP2696: Digital Loudspeaker Controller



DP series

MAIN FEATURES

- ✦ High quality 24-bits/96kHz 3th generation SHARC DSP
- ✦ Two input & six output channels
- ✦ Advanced GUI
- ✦ Hardman Filters
- ✦ High sonic performances
- ✦ Delay 400ms on input, 80ms on outputs
- ✦ Easy to use
- ✦ PEQ 6 on each input and output
- ✦ Control software
- ✦ Lock function for front panel

DESCRIPTION

The new Digital Loudspeaker Controlled TECNARE DP-2696 is high performance and user-friendly signal processor for loudspeaker system. The DP-Series supplies generous amounts of signal processing capability and a wide variety of crossover shapes, providing processing of 2 input for up to stereo 3-way or mono 6-way configurations.

On each input Gain, Hi and Lo pass filters, Hi and Lo shelving, 6 band PEQ and delay. On each output Gain, Crossovers, Hi and Lo shelving, 6 PEQ, phase reverse, delay and limiter.

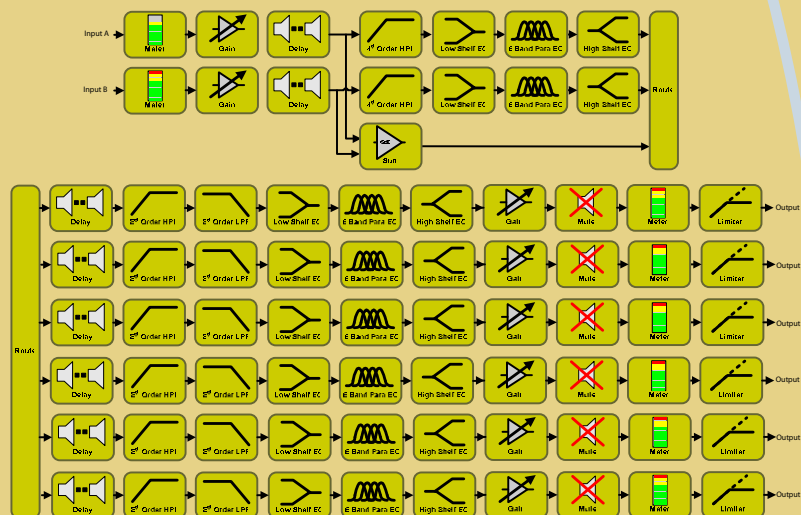
The DP2696 is capable of crossovers up to 8th order (48dB/Octave). In addition to the usual Butterworth, Linkwitz-Riley and Bessel filter shapes, the DP2696 provides access to Hardman crossover filtering, a technique we are proud to have introduced to the industry. Hardman filters produce much steeper cutoff slopes for a given order than conventional crossover alignments, without any additional group delay. This allows a lower order filter to be used without sacrificing cut-off characteristics, but with smoother group delay and less severe phase penalties, giving a more natural sound. Hardman filters also provide identical phase characteristics between adjacent bands (like Linkwitz-Riley), so the polar performance is rock steady.

The Hardman high-pass and low-pass filter are particularly avantgarde and enable the use to do very selective cuts (with high slopes) without introducing phase rotation, thus allowing the design of very accurate crossovers.

The DP2696 uses 96kHz sampling rate, Burr- Brown analogue-to-digital converter, the renowned Wolfson multi-bit digital-toanalogue converter, and a powerful 3rd generation Sharc Digital signal Processor (DSP). All this adds up to deliver the ultimate in sonic transparency and a stunning open natural sound quality

The DP-2696 processor may be controlled comprehensively from their front panel or by using the proper software application, via the RS232 port or an USB adapter. Option Ethernet interface offers networking of several units.

PCC Net card are available to put a network and remotely manage processing racks for several equipment.



Signal Processing Bloq Diagram

DP2696: Digital Loudspeaker Controller



Technical Specifications

Audio Inputs	2 female XLR
Audio Output	6 male XLR
Input Impedance	> 10k Ohms, Electronically balanced
Output Impedance	<100 ohms, ground balanced
Maximum Input level	+20 dBu
Maximum Output level	+22 dBu into 600 Ohm load
Sample Rate	96 kHz
Bit Depth	24 bits
THD (20 Hz-20kHz)	<0,01 %, (+10 dBu, 20 Hz to 20 kHz, 30 kHz bandwidth)
Dynamic Range	>112 dB (A weighted, 22 kHz bandwidth) >109 dB (un-weighted, 22 kHz bandwidth)
Serial Comms Data	38.4kbaud, format : 8 data, 1 stop, no parity 9pin Sub-D
Power Consumption	25W max
Mains Power	IEC. Universal switch mode PSU, 85v to 250 AC 50/60Hz

Processing

Input Gain	+20 dB to -80 dB and mute, 0,2 dB steps
Input HPF Freq.	Off, 10 Hz to 25,4 kHz, 1/36 d'octave steps
Input Shapes	1 st order, Bes12, But12, LR12, Bes18, But18, Bes24, But24, LR24, Hardman 4 th ord.
Output Gain	+20 dB to -80 dB and mute, 0,2 dB steps
Output polarity	Norm, Invert
Output HPF Freq.	Off, 10 Hz to 25,4 kHz, 1/36 d'octave steps
Output HPF Shapes	1 st order, Bes12, But12, LR12, Bes18, But18, Bes24, But24, LR24, Hardman 4 th ord, But48, Lr48, Hardman 8 th ord.
Output LPF Freq.	Off, 10 Hz to 25,4 kHz, 1/36 d'octave steps
Output LPF Shapes	1 st order, Bes12, But12, LR12, Bes18, But18, Bes24, But24, LR24, Hardman 4 th ord, But48, Lr48, Hardman 8 th ord.
Limiter	High performance limiter, adjustable threshold (-40 to +20 dBu) in 0.2dB steps, automatic time constants
Output Ch. Source	Input A, Input B and SUM pre and pos input EQ
Delay	Input 400 ms, output 80 ms
PEQ Freq.	10 Hz to 25 kHz 1/36 octave steps
PEQ Width	0.1 to 5.2 Oct, Q 0.2 to 14.2 1/36 octave steps
PEQ Gain	-15 to +15 dB, 0.2 dB steps
PEQ Slope	6 to 12 dB
Shelving EQ Freq.	10 Hz to 25 kHz
Shelving EQ Gain	-15 to +15 dB,

Environmental

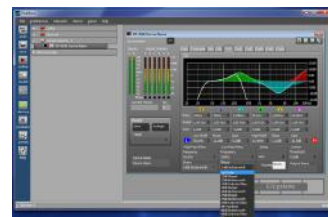
Temperature	0 to +55°C
Humidity	0 to 80% RH (non-condensing)

Additional Feature and accessories - Network Enabled version only:

NetworkPorts	PCCJ Net Card option *
USB&RS232 Interface	
External Power Supply	
Ethernet Interface	
Dante® external converter	
1U Rack Mount kit	

* Two RJ45 network link port allow the network-enable version DP2696 to combine any PCCinet system with any other loudspeaker system.

The control of all the features is paramount. **Podware®** software fulfills this requirement.



A large library of presets is included for systems ranging from two small **Tecnares** loudspeakers all the way up to complex, "Array Series" line array products.