

# product specifications



## XTA DP428



### PRODUCT FEATURES

The DP428 is XTA's most advanced speaker management system. With 4x8 matrix flexibility and 48dB crossover slopes, sophisticated tools are close at hand. An array of filter types are available including parametric, shelving, bandpass, notch, and elliptical. Phase on all inputs and outputs is adjustable in 2 degree steps. AES/EBU inputs and outputs are built-in and easily selectable. Two stages of limiting insure safety further down the audio chain. 96kHz/24-bit internal processing is on board for pristine audio quality. The DP428 puts XTA's transparent algorithms to work in a compact 1U package that remains easy to use.





# technical specifications

## DESCRIPTION

The DP428 is a powerful DSP based audio processor, ideally suited for install applications, where it combines the functions of a multitude of conventional products in a compact 1U unit with extensive remote control capabilities. To achieve this, the DP428 has four inputs and eight outputs which can be configured in a selection of basic crossover modes – 4 x 2 way; 2 x 3 way + 2 Aux; 2 x 4 way; and 1 x 8 way. It also offers a “free assign” mode, which allows completely flexible routing of any output from any combination of inputs.

Each input has a gain control, variable delay, a 28 band graphic equaliser and a further eight bands of fully parametric equalisation. The parametric filter bands have a large selection of different filter types available, including shelving, notch, band-pass, phase and elliptical behaviours.

Each output has a gain control, variable delay, high and low pass crossover filters, nine bands of fully parametric equalisation, polarity switching and, additionally, a fully featured limiter, and a final clip limiter. The crossover filters offer slopes of up to 48dB/Octave., with a variety of responses available.

The DP428 is also equipped with AES/EBU digital inputs and outputs, and includes a sample rate converter, capable of accepting anything from 32 kHz up to 192 kHz.

It may be controlled externally by XTA's proprietary Windows software, along with existing and future 'Audiocore' products.

The DP428 features superb audio quality – carefully optimised double precision signal processing coupled with 24 bit conversion ensure a dynamic range in excess of 117dB. The high sampling rate of 96 kHz means minimal filtering providing exceptional sonic purity with a bandwidth in excess of 32 kHz.

A flexible 4-input/8-output multi-mode format caters for any configuration, regardless of scale.

Both routing of inputs to outputs, and ganging (for editing) are completely flexible.

A completely new SHARCTM based DSP platform supplies phenomenal computational power, allowing the unit to provide not only multiple bands of standard parametric equalisation on every input and output, but an additional full spectrum graphic equaliser on each of the four inputs. This additional power also permits both program limiters and no overshoot clip limiters on each output.

Delay of up to 650mS may be independently set for each output, with an exceptionally fine minimum increment of 300nS, which corresponds to a distance change of 0.1mm!

The comprehensive standard specification also includes up to 255 memories, and remote control via MIDI, RS232 or RS485 ports, with security lockout.

## PRODUCT DATA

Inputs: 4 electronically balanced  
Impedance: > 10k ohms.  
CMRR : >65dB 50Hz - 10 kHz.

Outputs: 8 electronically balanced  
Source Imp: < 60ohms  
Min. Load: 600ohm  
Max. Level: +20dBm into 600 ohm

Frequency Resp.: + 1/2dB 20Hz-20kHz  
-3dB @ 32 kHz  
Dyn. Range:> 116dB 20Hz-20k unwt'd  
Distortion:< .02%@1kHz, +18dBm  
Maximum Delay: 650 mS  
Min Step Size: 0.3 μS  
Input Gain: +6dB to -40dB in 0.1dB steps  
Output Gain: +15dB to -40dB in 0.1dB steps and mute

Parametric Equalisation:  
8 per Input / 9 Sections per Output  
Filter Gain: +15dB to -30dB in 0.1dB steps.  
Freq. Range: 19.7Hz - 32 kHz, 1/36 octave steps.  
Filter Q / BW: 0.4 to 128 / 2.5 to 0.008  
(Sections switched to shelving response)  
Low frequency: 19.2Hz - 1 kHz  
High frequency: 1 kHz - 32 kHz  
Shelf gains: 15dB in 0.1dB steps.

High and Lowpass Filters:  
Filters: 1 of each per output.  
Freq. Range HPF: 10Hz - 16 kHz  
1/36 octave steps.  
Freq. Range LPF: 35Hz - 22 kHz  
1/36 octave steps.

Responses:  
1st Order 6dB/Oct.  
Bessel/Butterworth/Linkwitz-Riley 12-24-48dB/Oct.  
Bessel/Butterworth 18dB/Oct.

Program Limiter:  
Threshold: +22dBu to -10dBu  
Attack time: 0.3 to 90 milliseconds  
Release time: 2/4/8/16/32 x Attack time

Input meter: 2 x 6 point, -24dB to digital clip.  
Output meter: 8 x 6 point, -24dB to +4dB into limit.

Connectors:  
Inputs: 3 pin female XLR  
Outputs: 3 pin male XLR.  
External: 9 pin DEE connector (RS232)  
RS485:3 pin male XLR (out) 3 pin male XLR (in)  
Power: 3 pin IEC

Power:  
60 to 250V □15% @ 50/60Hz.  
Consumption: < 30 watts.  
Weight: 3.3kg. Net (4.7kg. Shipping)  
Size: 1.75"(1U) x 19" x 11.8"  
(44 x 482 x 300mm) excluding connectors



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