

DP548 Dynamic Audio Management

Software control for DP548

AudioCore - fast, intuitive, advanced control of DP548 direct from your PC

AudioCore software gives the user instant and intuitive control over all the parameters of the DP548. Click on any unit's function block and the parameters for that function are immediately available and adjustable via mouse or keyboard.

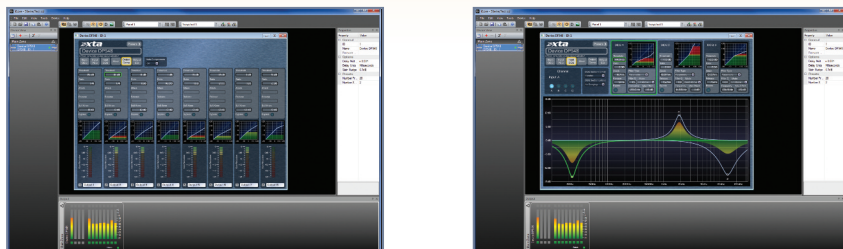


Latest Features -

- Watch the frequency response adapt in real time to the input, either each band individually, or view a combined response curve showing the effect of all the DEQ bands together.
- DEQ bands can be changed from a parametric response to a shelving response and even a full range mode, turning any band into a compressor or expander if required.
- SiDD's bouncing balls are back! AudioCore instantly shows how your input relates to the input/output curve of each DEQ band (or compressor) with the bouncing ball reacting to the envelope as well as the input level.

iCore - custom control configurations for installations

With a fresh look and feature set tailored towards fixed installation projects, iCore version 2 offers familiar control of the DP548 and lets you create custom panels and design interfaces specific to your application. iCore is also compatible with all 4 Series products and our installation processor, the DC1048.



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DP548 Dynamic Audio Management



A Dynamic Combination

The DP548 from XTA
Class-leading audio management
with Dynamic EQ and Compression

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Much more than the sum of its parts...

Featuring the very best of XTA's technologies, the DP548 uses a powerful new DSP platform to combine the class-leading audio management of our 4 Series processors with the comprehensive dynamics processing of our D2 and C2 dynamic processors.

Alongside the original 4 Series features, the DP548 adds three bands of dynamic equalisation across each input and a compressor across each of the eight outputs. For complete flexibility there's also full matrix mixing from any input to output.

Together with groundbreaking new features in our latest AudioCore control software, it all makes for a very dynamic combination.

XTA Dynamic EQ...

Having XTA Dynamic EQ in any engineer or contractor's rack is like having another set of hands at the ready. Unlike traditional fixed EQ, dynamic EQ only "EQs" when you want it to, at a threshold you choose - until that point all filters are transparent. Once the threshold is reached the desired EQ - either boost or cut - is gradually introduced. As an example: problematic frequencies which only occur at high levels can be notched out when the threshold is reached, a vocal channel can be sweetened when the artist is struggling with certain notes, bass frequencies can be boosted when the system is running at low levels for example during an interval.

There's even adjustment over how much EQ you want to allow - subtle creative effects or serious corrective action with lots of control.



Input Section

Just like the industry standard 4 Series processors, each input has a 28-band graphic EQ and an additional 8 bands of "traditional" parametric EQ. Adding to this comes our incredibly powerful dynamic EQ. Three bands are available on each input, with all four modes of operation supported (so cut or boost either above or below the threshold). Each band can also be chosen as a "standard" parametric filter, a high or low shelving filter, or even be set to "full range" whereupon it will act as a compressor (or expander - depending on chosen mode). Dynamic EQ may be stored in its own memories, as can graphic EQ settings, all other input settings or all output settings.

Output Section

Looking at output sections, the requisite crossover filters offer slopes from 6dB/Octave up to 48dB/Octave. Nine more bands of parametric EQ follow and then there's a choice of dynamics useful for protection or for creative use. Before the limiter sections is a fully featured compressor with variable knee to turn it from a safe corrective tool with hard knee to a gentler effect that only makes its presence felt gradually as the threshold is approached and exceeded. Each output features a combination of limiters - a limiter designed to protect individual drivers from over-heating, and an additional look-ahead "D-Max" limiter for added safety and to prevent driver over-excitation.

Equalisation Palette

- EQ bands - 8 per input, 9 per output
- Each band can be switched to Bandpass, Allpass, Notch, VariQ, Shelf and Elliptical response
- Any band may also be used as a phase filter with 2 degree accuracy
- Additional 28-band graphic on each input with switchable response type

Limiter

- Threshold +22dBu to -10dBu
- Attack time 0.3 to 90 milliseconds
- Release time 4, 8, 16 or 32 times the attack time

Dynamic EQ

- 3 bands per input
- Parametric (19.7Hz - 32k), High Shelf (35Hz - 32kHz), Low Shelf (19.7Hz - 16kHz), Full Range Mode
- Individual band bypass

Compressor

- One per output
- Max ratio 16:1
- 12 step adjustable knee



Matrix Mixing

Routing inputs to outputs is as flexible as ever with any input or combination of inputs being switchable to any output, and there are various useful templates to get you started (along with default crossover points to help). Base delay of up to 650mS may be added, along with driver alignment delays on outputs with sub-millimetre accuracy.

The DP548 also supports a full matrix mixing mode where inputs may be mixed in any ratio to any outputs with four "sends" being available on each output channel instead of just switching on/off.

Audio Inputs and Outputs

- Electronically balanced
- Input impedance > 10k Ohms
- Input CMRR > 65dB 50Hz - 10kHz
- AES/EBU

Connectors

- Inputs 3 pin female XLR
- Outputs 3 pin male XLR
- RS485 In/Out XLRs
- RS232 9 Pin (Female) D Connector

Mix Matrix mode

- Input sends to each output continuously variable from -40.0dB to +15.0dB in 0.1dB steps plus OFF

Crossover Filters

- Bessel/Butterworth 6/12/18/24/48dB per octave and Linkwitz-Riley 12/24/48dB per octave