



**SIDD DP324 Dual/Stereo-Channel Dynamics Processor**

XTA's tradition of innovation, quality and reliability continues with SIDD. Need several processors on a single or stereo signal? SIDD- It's all in one box.

**Digital dynamics, with control and creativity in one unit**

SIDD is Seriously Intelligent Digital Dynamics - a powerful dual/stereo-channel dynamics processor for Front Of House System Control, Channel Insert, In-ear Monitoring, Stage Monitoring, Recording, Mastering and Broadcast, offering compressor, limiter, gate/expander, dynamic EQ, parametric input EQ, ADT, harmonics generators, sidechain EQs, delay and instant recall factory/user presets, all in 1U.

True digital processing, utilising XTA's proven EQ and Limiter Algorithms, SIDD offers unparalleled sonic quality, coupled with absolute accuracy and perfect stereo tracking.

User-adjustable look-ahead facility up to 60µs protects signal integrity for each of the compressor, gate/expander and limiter modules.

Individual access keys for main sections, together with an enhanced display, and multiple rotary controls make using SIDD simple and intuitive.

Additional auxiliary sends for sidechain monitoring or extra delay lines.

Storing and recalling your settings is easy, with a built-in library of presets, to use as they are or adjust to your liking. Three modes of use are included to aid setup in high pressure (live) situations. You decide what you need to be displayed, minimising confusion.

**Featuring all of this processing all of the time:**

**Compressor** - fully adjustable 'look-ahead' design complete with dedicated sidechain processing. Variable knee, and two parametric sidechain filters available for frequency conscious compression

**Dynamic Equalisation** - compress or expand only the frequencies you choose with unprecedented control. Choose the operating mode (Cut or Boost, Above or Below the Threshold), with full control over the Attack, Release, and Ratio, plus metering showing the dynamic action, based around only the frequencies you choose.

Front panel metering of all functions, including a backlit LCD screen and clear, bright LED displays of each module's status.



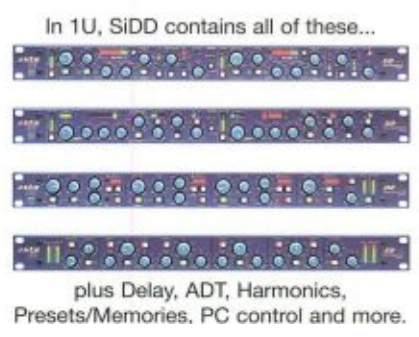
**Input EQ** - 6 fully parametric bands, plus separate high and low pass filters, with selectable response.

**Delay** line up to 300µs, with additional ADT module - allows 'staging' of performers left/right and front/back of stage.

**Harmonics Generator** for creative introduction of valve-like warmth.

**Gate/Expander** - 'look-ahead' design can open the gate before the signal arrives! Fully featured with all the parameters you would expect, and extensive sidechain processing - HPP/LPF and 2 parametric! Pressing 'LISTEN' allows monitoring of the key signal to facilitate quick homing in on troublesome areas

**'Brickwall' Limiter** - fully featured with sidechain EQ, and 'look-ahead' delay for preemptive adaptation to signal peaks. Can pre-empt signal peaks for zero overshoot - essential for mastering, or in-ear monitoring safety.



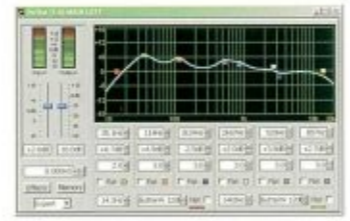
**Windows Software completes the SIDD System Integration**

Developed alongside SIDD is an all new software package which permits complete control of up to 32 SiDDs on a single long distance RS485 connection. The first SiDD can be used as the RS232 (from the PC/Laptop) to RS485 converter, avoiding the need for external devices.

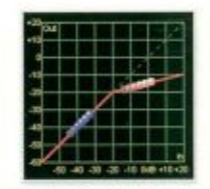
Unlike most other PC software packages, SiDD's control software uses a full quasi-duplex protocol. This means that any changes to any connected SiDD are immediately reflected on the PC, and any changes at the PC immediately update the SiDD under control.

With so much controllability, things could get confusing. SIDD always keeps the PC informed of changes, so any button presses or adjustments will always bring the relevant control window to the front on the screen.

Graphs and controls update in real time and full metering of all sections is provided, including overall channel gain reduction. Views may be customised to show just the windows you want for the devices you choose. Up to eight user defined views are available, in addition to a channel view that shows all the windows for the unit currently being adjusted.



One of the most exciting features of SiDD's software is the 'bouncing ball' metering indication. This shows, in real time, the input level relative to the threshold for any of the dynamics modules, intuitively allowing you to decide where to set the threshold.



The 'bouncing ball' shows the input level relative to the set threshold, or the view can be set to display 'traditional' VU metering for complete monitoring confidence.



Additional information in the Windows software shows not just the 'bouncing ball' operating point, but the entire sidechain frequency response. Controls displayed are automatically updated dependant on the mode.

**SIDD/DP324 SPECIFICATIONS (and SERIES 2 where common)**

Inputs	2 electronically balanced*
Impedance:	> 10k ohms
CMRR	65dB 50Hz - 10kHz
Outputs	4 electronically balanced*
Source Imp	< 60 ohms
Minimum Load	600 ohms
Maximum Level	+20dBm into 600 ohms
Frequency Response	± 0.5dB 20Hz-20kHz
Dynamic Range	>110dB 20Hz-20k unwt'd
Distortion	< .02%@1kHz,+18dBm
Maximum Delay	300 mS
Minimum Step Size	21µS
Input Gain	±15dB in 0.1dB steps
Output Gain	-60dB - +15dB in 0.1dB steps, and 'Off'

**SIDD Parametric Equalisation**

6 per Channel	+15dB to -25dB in 0.1dB steps
Filter Gain	20Hz - 20kHz, 1/36 octave steps (368 positions)
Frequency Range	0.4 to 128 / 2.5 to 0.008 (Sections switchable to shelving response)
Filter Q / BW	19.7Hz - 1kHz
Low frequency	1kHz - 20kHz
High frequency	± 15dB in 0.1dB steps
Shelf gains	

**SIDD High and Lowpass Filters**

Filters	1 of each per output
Frequency Range HPF	<10Hz - 16kHz 1/36 octave steps
Frequency Range LPF	35Hz - 22kHz 1/36 octave steps
Responses	Bessel/Butterworth 12dB/Octave

**SIDD Dynamics Processing**

Dynamic EQ module	x 2
Gate/Expander	x 2
Compressor	x 2
Limiter	x 2

**SIDD Additional Processing**

2nd and 3rd Harmonics Generator	
A.D.T. Module	
Display	2x24 character backlit LCD
Input meter	2 x 7 point, -18dB to +18dB
Output meter	2 x 7 point, -18dB to +18dB
Gain reduction and Threshold metering for each module	

**SIDD Connectors**

Inputs	3 pin female XLR
Outputs	3 pin male XLR
MIDI In	5 pin DIN
External RS485	9 pin DEE connector (RS232) 3 pin male XLR (out) 3 pin male XLR (in)
Power	3 pin IEC
Power Consumption	60 to 250V 15% @ 50/60Hz
Weight	< 20 watts
Size	3.5kg. Net (4.8kg Shipping) 1.75'(1U) x 19" x 11.8" (44 x 482 x 300mm) excluding connectors
Options	* = Transformers available
Optional Interfaces	AES/EBU Digital Input/Output

**Additional SERIES 2 Information**

All units have no more than 2ms intrinsic processing delay, regardless of amount of EQ/Compression being applied.

**E2**  
Slope - 2nd 12dB Butterworth/4th 24dB Butterworth

**G2**  
Narrow Q - 1.25, Wide Q - 0.7

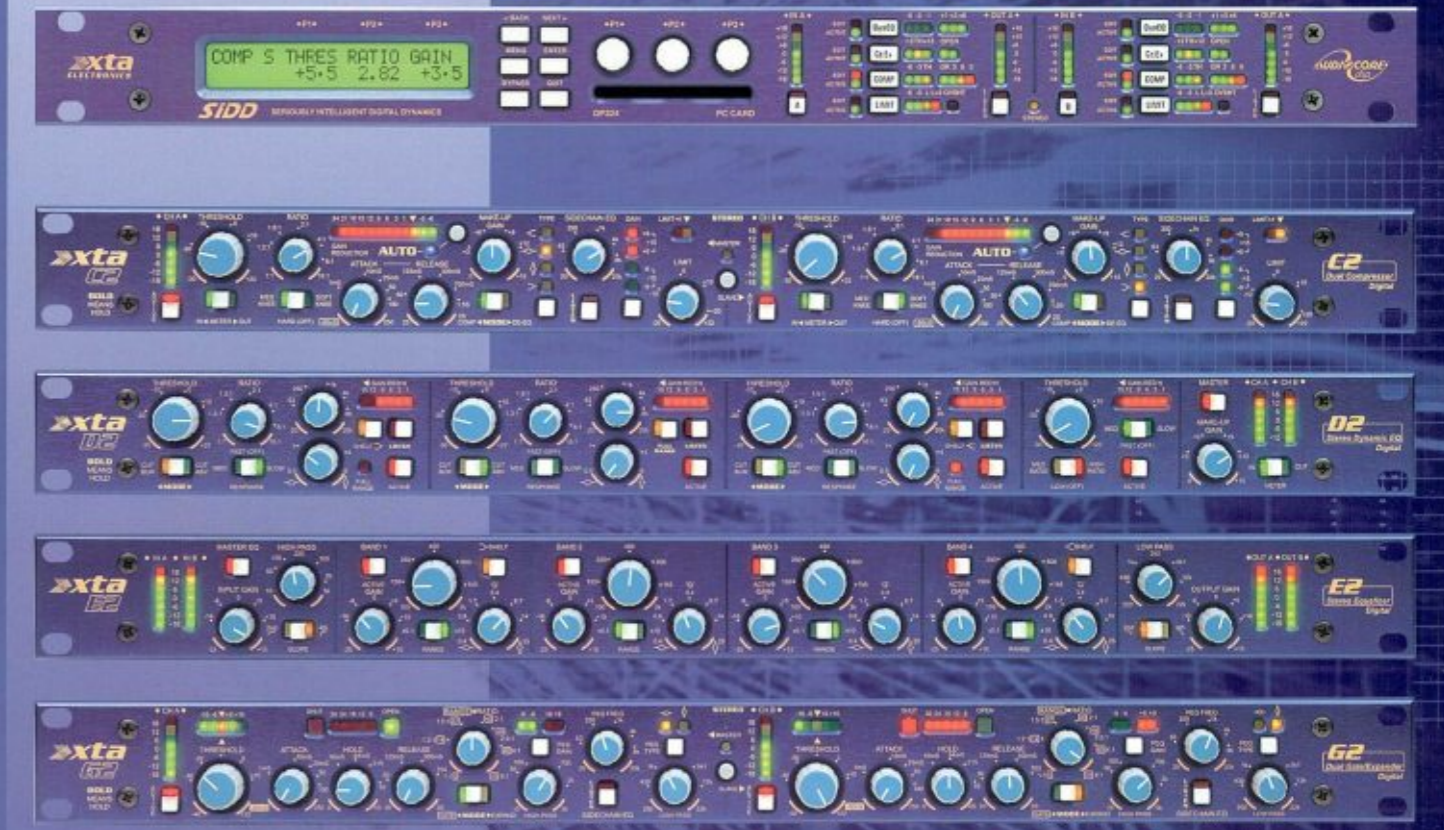
**D2**  
Compressor Section Time Constants:  
Fast - 0ms Attack/50ms Release, Medium - 3ms A/150ms R, Slow - 15ms A/600ms R  
Compressor Ratios: H=3:1, M=2:1, L=1.5:1  
D2 Time Constants: Interactive

**C2**  
Knee - H=0dB, M=6dB, S=12dB  
AUTO Time Constants: Interactive  
Narrow Q - 1.2, Wide Q - 0.8  
Limiter: -60 microseconds Attack/300ms Release

Due to continuing product improvement the above specifications are subject to change.



DP324	Dual/Stereo-Channel Dynamics Processor
C2	Dual Compressor Digital
D2	Stereo Dynamic EQ Digital
E2	Stereo Parametric EQ Digital
G2	Dual/Stereo Gate Digital







C2 Dual Compressor Digital  
D2 Stereo Dynamic EQ Digital

E2 Stereo Parametric EQ Digital  
G2 Dual/Stereo Gate Digital

The transparent compression and EQ algorithms that brought XTA's DP324 SiDD - Seriously Intelligent Digital Dynamics - to concerts, clubs and installations worldwide are now available as stand-alone dynamics control toolkits. Clear concepts - compressor, gate, dynamic EQ, parametric EQ - combined with state-of-the-art DSP from XTA - look-ahead attack times, phase-perfect stereo, seamless limiting, swept sidechain EQ.

The transparency and power of XTA's DSP has driven world tours by the Rolling Stones, Broadway and London shows, George Martin's Air Studios, The Grammys, SuperBowl and the Olympic Games. The Series 2 range combines this heritage with colossal problem-solving abilities for countless audio situations.

**C2/G2**  
Powerful, usable features: Predictive compression, predictive gating. Look-ahead Attack Times, so you can open the gate or start compressing up to 60 microseconds ahead of the signal's leading edge. Catch the entire envelope of every voice or instrument you process without losing a thing. Use the sidechain EQ to make the gating or compression look for, or ignore, certain frequencies.

**D2/E2**  
Temporary or permanent EQ solutions, in phase-perfect stereo, for powerful dynamics control. De-ess, de-pop, de-boom - everyday problems which can be acted upon fast, and seamlessly controlled. Two-channels of identical processing for stereo mics, back-up channels, L/R system control or CD/broadcast mastering to name just a few.

**C2**  
Dual Compressor  
Digital



Easy to grab **THRESHOLD**      The clearest gain reduction metering in the business!      Sweep the sidechain parametric to quickly target any frequency      Dual channel, or phase-perfect stereo      **AUTO** mode for the easiest possible operation      15dB of make-up gain      Sidechain control adjustable +/- 15dB

Clear input and output metering      Selectable **"KNEE"** - Soft, Medium, Hard      Powerful De-ess/De-pop mode, to suck out **ANY** problem frequency      Seamless look-ahead limiting for absolute safety, regardless of the peak level      Look-ahead attack time up to -60 microseconds      Four selectable types of sidechain response - High or low shelf, wide or narrow parametric

**G2**  
Dual/Stereo Gate  
Digital



Clear metering of **INPUT** and **THRESHOLD** levels      Very bright **OPEN** and **SHUT LEDs** - monitor them from wherever you are      Dual channel, or phase-perfect stereo      High-pass, Low-pass **AND** swept parametric band in the sidechain

Easy-to-grab **THRESHOLD**      Look-ahead attack time for clickless gate opening      **EXPANDER** mode for more subtle dynamic control      Sidechain parametric adjustable +/- 15dB, wide or narrow Q

**D2**  
Stereo Dynamic EQ  
Digital



3 bands of frequency-selectable compression      Clear gain reduction metering      Bands 1 and 3 switchable to shelves      Additional full-range Compressor with selectable **ATTACK/RELEASE** and **RATIO**

CUT above or below the **THRESHOLD**      Selectable response times      Individual **LISTEN** facility for each band      Clear **MASTER** In/Out metering with 15dB make-up gain

**E2**  
Stereo Parametric EQ  
Digital



**MASTER** unit IN/OUT      4 bands of powerful 20-20K EQ      Bands 1 and 4 can be set to **SHELF** mode      **LOW PASS** filter with adjustable slope      Stereo **INPUT** and **OUTPUT** metering

**HIGH PASS** filter with adjustable slope      Easily adjust **FREQUENCY, Q** and **CUT/BOOST**      **Digital** - Perfectly in phase at all times      Master **INPUT** and **OUTPUT** gains adjustable



Back panel common to each SERIES 2

factory test procedures and future software upgrades      2 in, 2 out - what could be simpler?