

System Controllers

By **Bill Evans**

Cheap DSP has meant many changes in the pro audio world, and most of them mean we get to sell off or leave boxes at the shop, because what used to take four separate boxes is now done with one. The system controller is maybe the best example. Where your "drive rack" once contained crossovers, EQs, compressor/limiters and time delay, these computerized wonders do all that—usually in a single rack space—without breaking a sweat. As we see more processing migrating to the actual amps themselves, even these boxes are not safe from the march of progress. But here is a look at the current state of affairs. **F•H**



Martin Audio DX1.5

Company	Model	Price	I/O	Processing
Ashly www.ashly.com	ne4800	\$2,695	4x8	A full array of variable Q graphic and parametric equalization, crossover filters to 8th-order Butterworth, Bessel, Linkwitz, and Notched-Linkwitz, an extremely advanced automatic feedback suppressor, autolevelers, compressors, matrix duckers, limiters, frequency-keyed noise gates, time delay up to 1365 ms on every channel, sinewave, pink noise, and white noise generators.
BSS www.bssaudio.com	366T Omnidrive	\$2999 MSRP	3XLR/6XLR	Crossover, Limiter, up to 38 bands of EQ, Delay
dbx Professional www.dbxpro.com	DriveRack 4800	3499.99	4 analog and AES/EBU inputs 8 analog and AES/EBU outputs	48 and 96 kHz operation, Optional CobraNet I/O, Optional Jensen I/O Transformers, Full Bandpass Filter, Crossover and Routing Configurations with Bessel, Butterworth, and Linkwitz-Riley filters, 31-Band Graphic and 9-band Parametric EQ on every input, 6-band Parametric EQ on every output, Loudspeaker Cluster and Driver Alignment Delays, Selectable DSP inserts on all inputs and outputs including Classic dbx Compression, Limiting and Advanced Feedback Suppression
	DriveRack 260	\$999.95 MAP	3XLR/6XLR	Advanced Feedback Suppression, Classic dbx Compression and Limiting, Graphic and Parametric EQ, Auto-EQ Function, Full Bandpass, Crossover, and Routing Configurations, Auto Gain Control, Pink Noise Generator and RTA, Setup Wizard with JBL Speaker and Crown Power Amplifier Tunings
DYNACORD www.dynacord.de	DYNACORD / DSP 260	\$980 List	2 in/6 out	24 Bit Digital Sound System Processor with crossover, EQ, delay, compressor / limiter.
EAW www.eaw.com	UX8800	\$3,617	Input: 4 Analog/2xAES/EBU/32 channels EAW U-Net Output: 8 analog, 32 Channels EAW U-net	10 parametric (inputs and outputs), Delay (inputs and outputs), Crossovers (outputs), Limiter on each output, polarity inversion (input), gain controls (inputs and outputs)
Martin Audio www.martin-audio.com	DX1.5	\$3,899	2 in/6 out	high and low pass filters are available with 1st order, Bessel, Butterworth and Linkwitz Riley from 1st to 8th order (48dB/Octave) slopes, 9 bands of parametric equalisation, a fully configurable look-ahead limiter, up to 650ms of delay adjustable in 0.3CE ^o s steps, gain from +15dB to -40dB in 0.1dB steps, and polarity adjustment.
Peavey www.peavey.com	Peavey VSX 26	\$559.99	2 in/6 out	Per input: 27-band Graphic EQ Autograph algorithm for automatic EQ settings, Compressor/Limiter, Delay (340 ms). Per output: Crossover/Bandpass filter (Butterworth, Bessel, Linkwitz-Riley), Parametric EQ (5-band, HP, LP Notch, Horn EQ, All-Pass), Compressor/Limiter, Delay with polarity inversion. Also Fully adjustable crossover points; Built-in signal generator (white, pink, sine); Phantom power +48 volt; Easy preset and system updates via Internet.
RANE www.rane.com	RPM 26Z	\$1,199	2 analog 2 AES3 in / 6 out	Mono and stereo Side-chain Compressors, Limiter, AGC, Ambient Noise Compensation, Parametric, 30-Band graphic, Feedback Suppressor, 2-way 3-way crossovers, Matrix Mixer, Auto Mixer, Mixer, Selector, Delay, Signal generator.
Tannoy www.tannoy.com	Tannoy TDX1	\$1482 MSRP	2 in/4 out	4-band parametric EQ per input; route any input to any output; 2-, 3-, and 4-way crossover (Butterworth, Bessel and Linkwitz-Riley type filters) on all outs; independent speaker alignment delay (200 ms) on all outs; independent digital limiter on all outs; S/PDIF digital in and through; factory and user presets.
	Tannoy TDX1	\$1482 MSRP	2 in/4 out	
TC Electronic www.tcelectronic.com	TC Electronic XO-24	\$995 MSRP	2 in/4 out	
XTA www.xta.uk.com	XTA DP448	\$5,795	4 in/8 out	Analog and AES/EBU In/Out, Input Graphic and Parametric EQ, Delay and Metering, Output Crossover, Parametric EQ, Delay, Phase Control, Limiting and Metering, Crossover slopes include: 6, 12, 18, 24 or 48dB/Oct. Filters include shelving, notch, elliptical and bandpass.
	XTA DP446	\$4,895	4 in/6 out	
	XTA DP444	\$3,995	4 in/4 out	
Yamaha Commercial Audio www.yamahacom.com	DME24n	\$3,849	8-IO Analog, 16-IO Digital (optional MY card slot), Total 24 I/O	Delay Long, Short, Dynamics Gate, Ducking, Expander, Compressor, De-Esser, Limiter, Filter BPF, HPF, LPF, Notch, EQ PEQ, GEQ, Fader, Pan LR, LCR, 3-1, 5.1, 6.1, Meter, Simple Mixer, Auto Mixer (II), Matrix Mixer, Delay Matrix, Source Oscillator, Wav File Player, Source Selector, Router, Crossover, Crossover processor (II), Speaker Processor, Other functions Room Combiner, Feedback suppressor, Ambient Noise Compensator, Audio Detector, Auto Gain Control, Event Scheduler, SPX
	SP2060	\$1,699	2XLR 1 AES in/ 6 XLR out	Input Select, Input Level, Input PEQ, Input Delay, Crossover, Output Polarity, Output Delay, Output PEQ, Output Level, Output Limiter, Digital/Analog, Stereo/Mono, 8 band, Stereo Link, Bypass, L.SHELF, H.SHELF, 6, 12 dB/Oct, 1300 msec, Stereo Link, Bypass, 6 dB/Oct, AdjustGc: 12, 18, 24, 36 or 48 dB/Oct, Bessel: 12, 18, 24, 36 or 48 dB/Oct, Butterworth: 12, 18, 24, 36 or 48 dB/Oct, Linkwitz: 12, 24 or 48 dB/Oct, Normal/Inverted, 500 msec, Bypass, 6 band, Bypass, APF (All Pass Filter) 1st, 2nd, Horn EQ, Threshold -54 dB to ±0 dB, Bypass



Yamaha DME 24-N



XTA DP448 Audio Management System



EAW UX 8800

Other Features	Computer Interface	Size/Weight
Channel mute	Programming is accomplished using standard 10/100 Ethernet or RS-232 protocol and Ashly's Protea NE Software on a PC platform. Optional CobraNet network audio input and output, EtherSound network audio input and output, AES/EBU digital audio input and AES/EBU digital audio output.	19.0" L x 3.5" H x 8.5" D, 14 lbs.
LCD display, six output mutes, input level meters, output level meters	HiQnet London Architect.	1.75" H x 5.75" D x 19" W, 6.2 lbs
Color QVGA Display; RTA input; EQ, Bandpass, Routing, Delay, Wizard and Utility instant access control; Input Channel Select; Input Threshold meters; Output Headroom meters; Output Mutes; Output channel select.	DriveWare System Architect	3.5" x 19" x 12.15", 11lbs.
LCD Display; Input metering; Threshold metering; Output muting; EQ, Delay, Crossover, Dynamics, AFS, RTA and Utility instant access buttons	DriveWare	1.75" H x 5.75" D x 19" W, 5.5 lbs
Output display with integrated limiter status and function display of output channels.. Direct access to the most important input and output parameters.. Precision display of input level for optimal system leveling.. Push button / LCD display	Easy to operate DSP 260 editing software permits the convenient editing of all parameters from a PC running windows. The computer is connected via the USB port on the front panel.	11 lbs. ship weight
Input and Output mutes, LCD Display, Encoder knob, LCD Function buttons, Ethernet connection	Controlled via EAWPilot	13.295" L x 19" W x 1.720" H, 10 lbs.
2 x 24 character LCD display	9 pin D type RS232	1 u rack mount, 7 lbs.
LCD screen; data wheel; setup; EQ; dynamics; Xover; delay; tools; mute and signal/clip LEDs; input select; output select; USB A&B I/O.	USB A&B	1RU; 9 lbs.
Front panel metering of input and out signals. No front panel control.	Computer via Ethernet, preset recall via contact closure, and Rane Remotes: VR2, MRS 4, LRS 4.	1U, 8 lbs.
Completely front panel controlled; input metering; 2 x 16 character backlit LCD, power on/off	Completely front panel controlled	1RU, 3.3 lbs.
		1RU, 3.3 lbs.
		1RU, 3.3 lbs.
Full Control	RS232 and RS485 control inputs. Wireless control ready.	1U rack size: 19" x 12", 8 lbs.
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		1U rack: 19" x 12", 8 lbs.
Scene control, presets, volume, meters, utility functions, user define buttons, headphones	*GPI, Ethernet, RS232, RS422, MIDI (PC, AMX, Crestron)	19" x 4" x 16.2", 17.6 lbs.
All Parameters accessible via Front panel	Ethernet	18.7" x 1.75" x 14.1", 9.7 lbs.