



HD1

Digital FIR/IIR Processor

ESS HD1 is a Loudspeaker processor with FIR(Finite Impulse Response) and IIR(Infinite Impulse Response) filter technology. It can effectively solve the phase problem of Loudspeakers, as well as providing IIR filters to adjust different parameters. FIRprocessing technology makes the sound of Loudspeakers more accurate.



Technical Specifications

Input Channels	4 analogue inputs, 1 AES/EBU digital input, 1 optical input
Output Channels	4 analogue outputs
Remote control	TCP/IP
Software	Windows remote software provided
AD Convertors	48 bit
Max. Input levels	+22 dBu
Sampling rate	96kHz
Max. Output levels	+18 dBu
Frequency response(-0.5dB)	4Hz-45kHz
Dynamic range	AD Convertors >130dB(dual range mode) 118dB(single range mode)
	DA Convertors 121dB
	Overall 121dB(dual range mode)
THD(1kHz)	AD Convertors -113dB(+4dBu) -105dB(0 dBFS)
	DA Convertors -110dB(+4dBu)
	-102dB(+18 dBu)
Response time	From input to analogue out 1ms
Routing and gain	Configure all inputs by routing
	Separate gain control for each input/output channel
Limiter for each channel	Separate limiters for amplifiers and Loudspeakers, thresholds and release time adjustable
Delay	Separate delay control for each input/output channel
Filters and equalizers for each channel	Up to 96 fully parametric high-precision freely configurable IIR filters
	IIR crossover filters with 6-60dB/octave
	Graphic filter/equalizer curves
Loudspeaker protect	Overshoot foreseeing limiters
FIR filters	1 high-precision FIR for each output channel
	Mixed linear and minimum phase equalization possible
	Max. Frequency resolution: 3Hz
* Above values ref. 20 Hz-20kHz, linear weighted.	