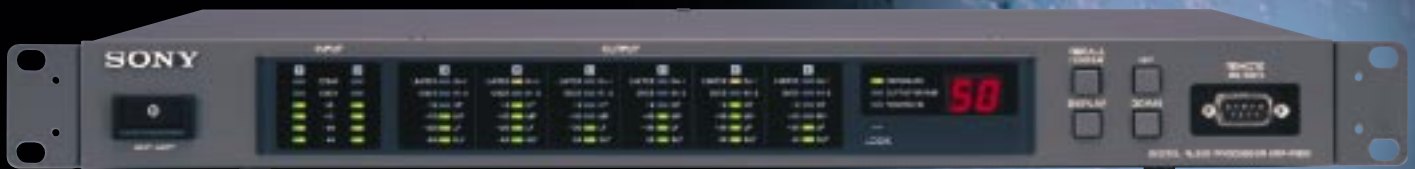


SONY®

Digital Audio Processor **SRP-F300**

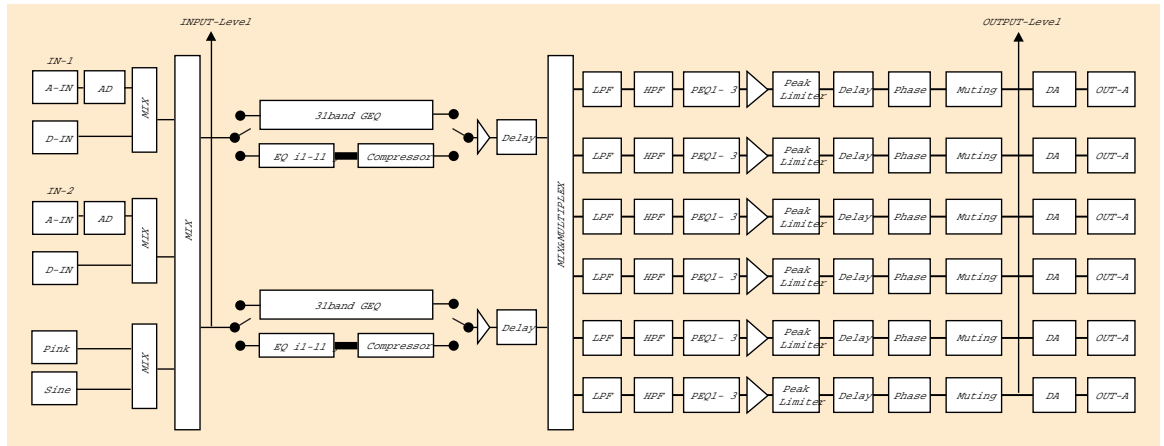


The SRP-F300 is a dual-input digital audio processor that provides audio processing and loudspeaker management functions. It is ideal for sound reinforcement applications in small to mid-size auditorium and for monitoring systems in control rooms. Programmed via a PC, up to 99 units can be operated from a single PC COM port making the SRP-F300 also ideal for use at large venues requiring complex control. The SRP-F300 uses the very latest 96 kHz sampling 24-bit A/D and D/A conversion technology and is a convenient 1U rack-mounting package.

The SRP-F300 has two inputs that can be flexibly routed to six analog outputs, configured for 3-way stereo or up to 6-way mono crossover use. 6-way zoning can also be provided. Inputs can be either analog or digital (32-96 kHz), or a mix of both formats. Pre-crossover processing can be either 31-band GEQ or 11-band PEQ with dynamics. Individual post-crossover processing of the six outputs includes comprehensive 3-band PEQ and peak limiting, plus signal delay, phase inversion and mute functions.

The 96 kHz digital inputs make the SRP-F300 ideal for use in recording studios with bi- or tri- amp monitoring systems. An audio consultant can configure the room's EQ and calibrate levels with a PC, and then leave the system permanently set-up to specification.

The software supplied with the SRP-F300 uses logical configuration screens, and references all level values (for limiters / compressors) relative to the signal headroom available in the unit, ensuring that optimum dynamic range is always maintained.



Features

- High accuracy 96 kHz sampling, 24-bit A/D D/A conversion
- Balanced analog and digital (AES/EBU 32 - 96 kHz) inputs
- PC-controlled via RS-232C, using supplied software
- Pink noise generator / oscillator for system setup
- Cascadable control architecture (dual RS-232C ports on each unit can be interlinked)
- 5-segment signal level display for each output (also shows crossover assignment)
- High-specification, 48-bit internal processing, including 3-band PEQ on crossover outputs
- 50 program preset memory
- 1U rack mounting

Input block

Any one of the following input modes can be selected

- 2-channel analog
- 2-channel digital
- analog mono mix
- digital mono mix
- 2-channel analog + 2-channel digital (the analog and digital signals of each channel are mixed)

The output of a pink noise generator / sine wave oscillator (adjustable for level / frequency) can be selected to the input channels

Master block

Either 11-band PEQ + Compressor or 31-band GEQ can be selected

11-band PEQ

- Peaking, Treble Shelving, Bass Shelving, Bandpass and Notch
- frequency: 20 Hz - 20 kHz (121 points in 1/12 octave steps)
- adjustment range: ± 12.0 dB, 0.5 dB steps (Peaking/Shelving type)
- Q: 0.3 - 19.3 (73 steps) (Peaking/Bandpass/Notch type)
- output level trim: $-\infty$ to +12 dB in 0.5 dB steps
- Ch1 and Ch2 can be linked for simultaneous adjustment

Compressor

- link modes: Individual, Link (stereo), Link (IN-1), Link (IN-2)
- side equalization: Peaking, Treble Shelving, Bass Shelving, Bandpass and Notch
- attack time: 10 μ s - 1 s (61 steps)
- release time: 1 ms - 10 s (49 steps)
- compression ratio: 1.0:1.0 - ∞ :1.0 (100 steps)
- threshold: -48 - 0 dBFS (97 steps)
- gain make up: $-\infty$ to +30.0 dB in 0.5dB steps

31-band GEQ

- adjustment range ± 12.0 dB in 0.5 dB steps
- Q: 4.3
- output level trim: $-\infty$ to +12 dB in 0.5 dB steps
- Ch1 and Ch2 can be linked for simultaneous adjustment





Output block

Each output channel (A to F) can be set independently

Selection of any one of the following sources

- Master block 1
- Master block 2
- mono mix of Master blocks 1 and 2

Crossover filter, up to 6th order, with HPF and LPF independently set

filter characteristics available:

- -12 dB Butterworth
- -18 dB Butterworth
- -24 dB Butterworth
- -30 dB Butterworth
- -36 dB Butterworth
- -12 dB Bessel
- -18 dB Bessel
- -24 dB Bessel
- -30 dB Bessel

- -36 dB Bessel
- -12 dB Linkwitz-Riley
- -24 dB Linkwitz-Riley
- cut-off frequency of all filters can be set to any point between 20 Hz and 20 kHz in 1/12 octave steps
- HPF and LPF can be set to OFF when used in a signal distribution system

3-band PEQ

Peak Limiter

- soft clipping action to reduce harmonic distortion, active at 6 dB below limiter threshold
- front panel limiter LED
- threshold: -20 to +6 dBFS in 0.5 dB steps

Output level trim: -∞ to +12 dB in 0.5 dB steps

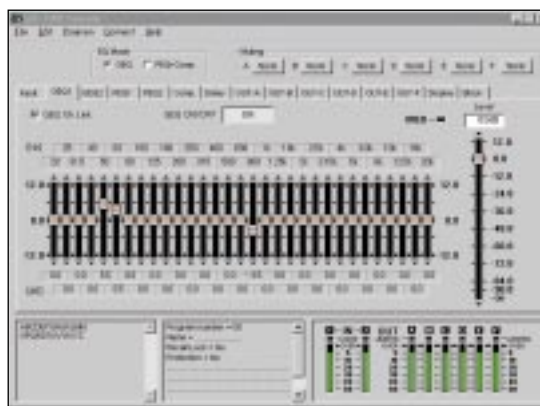
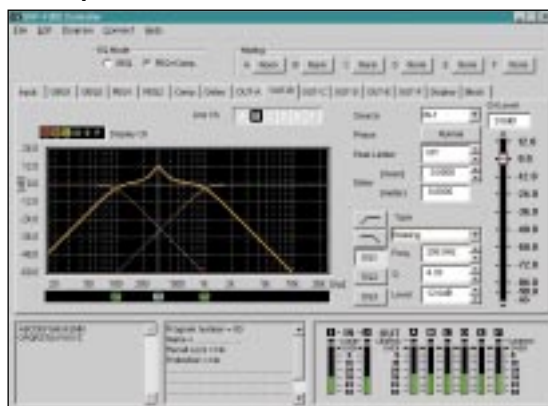
Signal delay: up to 2.7 s in 10.4 μs steps

Muting

Inverse or Normal phase selectable

Control software

Example



Output-B parameter setting display

GEQ1 parameter setting display

The other setting display-Input/GEQ2/PEQ1/PEQ2/Comp/Delay/OUT-A/OUT-C/OUT-D/OUT-E/OUT-F/Display/Block



Specifications

Audio Characteristics (Analog Input / Output)

Frequency response:	20 Hz - 20 kHz, ± 0.5 dB 20 Hz - 40 kHz, $+0.5$ dB / -3.0 dB
Dynamic range:	More than 110 dB (A-weighting)
T.H.D.:	Less than 0.008%
Min. signal delay time:	Approx. 880 μ s

Analog Input

Connector:	XLR-3-31 type (2)
Input impedance:	10 k Ω
Reference level:	+4 dBu
Max. level:	+24 dBu
A/D conversion:	96 kHz 24-bit linear

Analog Output

Connector:	XLR-3-32 type (6)
Output impedance:	47 Ω
Load impedance:	More than 600 Ω
Reference level:	+4 dBu
Max. level:	+24 dBu
D/A conversion:	96 kHz 24-bit linear

Digital input

Connector:	XLR-3-31 type (1) AES/EBU format, sampling rate 32-96 kHz
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Remote connectors: RS-232C (D-sub 9-pin, male) (1 front panel, 1 rear panel)

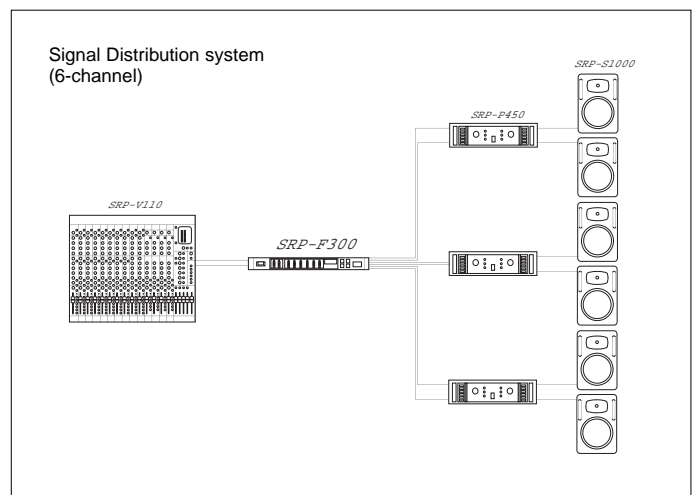
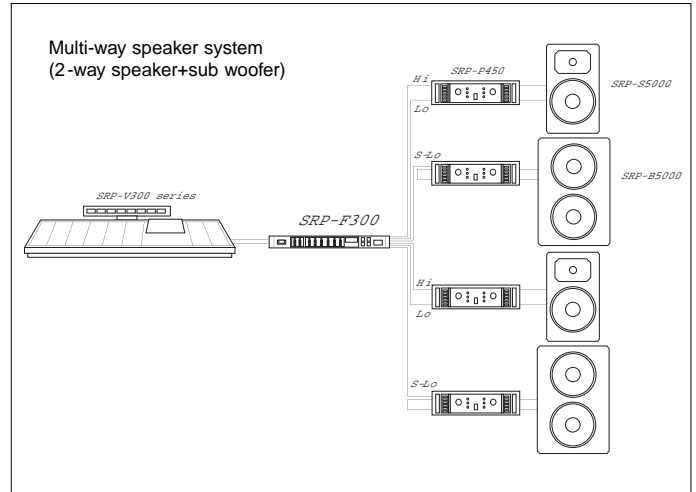
LED level meter: -40, -20, -10, -6 dBFS and OVER

General

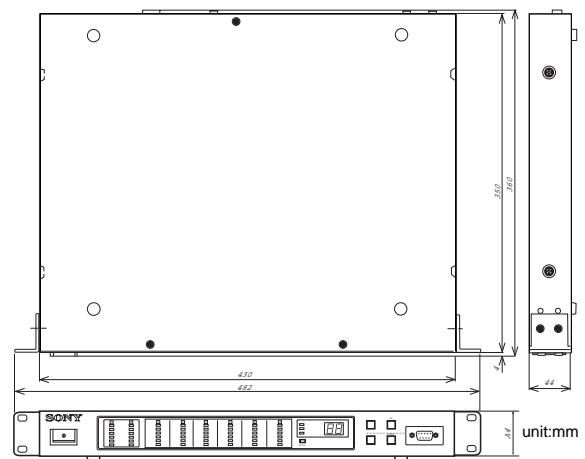
Power consumption:	25 W
Power requirements:	AC 120/230 V (Switchable) 50/60 Hz AC 120 V 50/60 Hz (For USA)

Dimensions:	482 (W) x 44 (H) x 360 (D) mm
Mass:	Approx. 5.2 kg (11 lb 8 oz)
Supplied accessories:	Control software for Windows® 95/98 (3.5-inch floppy disc) Protocol manual (3.5-inch floppy disc) Power cord(1)

System application



Dimensions



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