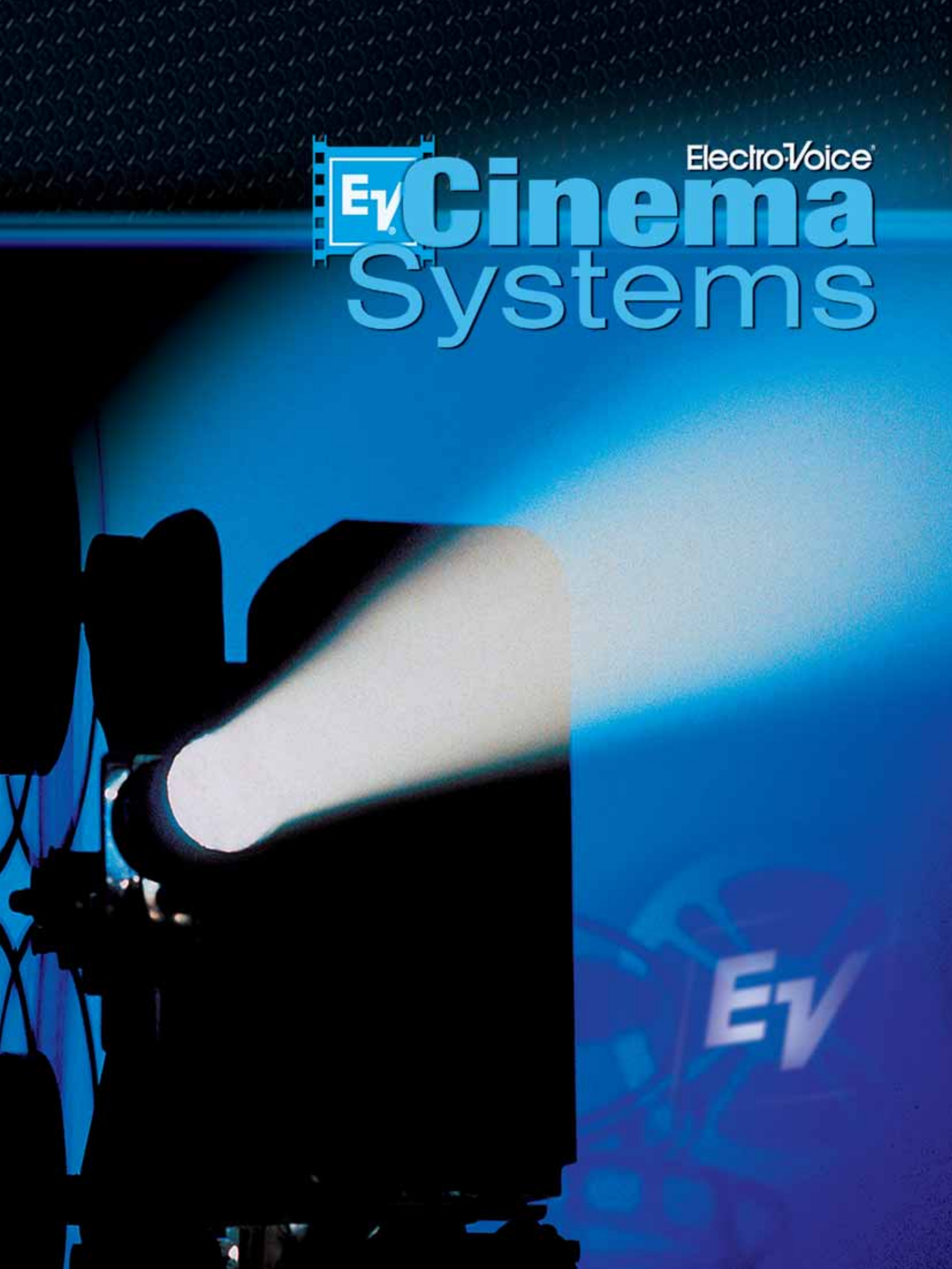
Electro-Voice

EV Cinema Systems



REFERENCES

CENTURY STADIUM PROMENADE, USA

EVERGREEN PARKWAY, USA

TIGART CINEMA, USA

GAUMONT, France

MATHAESER CINEMA, Germany

FORMULA CINEMA, Russia

The Benchmark for Cinema Sound Reinforcement

CINEMA. For a medium generally thought of as being visual, the quality of a theatre's sound system often determines the "cinema experience" for the paying customer. For years Electro-Voice has supplied loudspeaker systems, amplifiers and controllers to the cinema industry which have met or exceed the standards set by THX or Dolby Laboratories. Every summer, with release of the latest blockbuster action film, new benchmarks for acoustic performance are set - and Electro-Voice continues to meet these demands with the most innovative products in the industry. Products that meet the demands of digital sound on film.

At Electro-Voice we offer the engineering knowledge and expertise to design and manufacture products "from the ground up". Electro-Voice loudspeakers, amplifiers and controllers are conceived from the component level and integrated into high-performance audio systems, consisting of screen channels, surround and subwoofer systems. We are comitted to developing new technologies and achieving new levels of performance for complete cinema speaker systems.

GENERAL CINEMA, USA

THESSALONIKI, Greece

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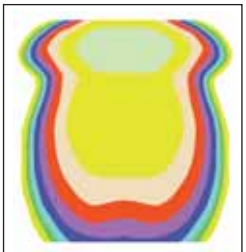
EV Asymmetric Directed Coverage Technology in VARIPLEX™ II

Electro-Voice pioneered Ring Mode Decoupling® (RMD®) as a result of experience gained through years of high-level system design. The goal of that basic research is to bring those new technologies into all aspects of the sound reinforcement industry, including EV's commitment to Cinema.

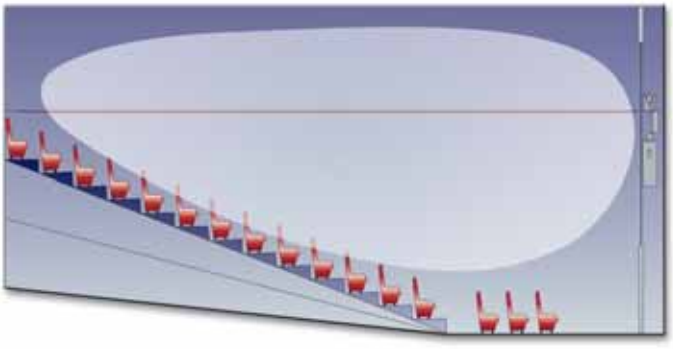
All loudspeaker components display unwanted vibrational modes — or resonances — that produce both frequency and time-domain distortions. A time-domain distortion is most often described by loudspeaker users as a "ringing" in the system. This ringing is usually most audible through the vocal fundamental range, and users commonly attempt to "cure" the ringing mode through equalization. Unfortunately such attempts remove not only the time-domain distortion, or ringing, but also parts of the musical signal as well. The net result is that musical information and intelligibility is lost. RMD® is a series of techniques developed by Electro-Voice engineers to deal with the time-domain distortion at its source. The basic problem is mechanical in nature. As a result, the only really effective solution is also mechanical. When acoustic resonances are encountered, the only effective solution is an acoustic remedy. The same applies to electrical resonances: The solution must be electrical.

RMD® treatment produces an acoustic signal that is less affected by mechanical and acoustical ringing modes. The result is a level of fidelity — particularly through the critical vocal range — that is more coherent. Another benefit of RMD® technology is a much higher degree of level independence. RMD® greatly minimizes the changes in system voicing that occur with level changes. Systems with RMD®, therefore, display a high degree of level-independent fidelity and a very audible improvement in vocal clarity as well.

Electro-Voice´s unique Asymmetric Directed Coverage technology provides an effectively rectangular coverage pattern. It provides advantages for most applications in traditional and stadium seating rooms. The unique throat and flare structure of the Waveguide delivers a 6-10 dB signal increase to the rear of the room. The resulting even front-to-back SPL eliminates ear-strain at the back of the sitting area and painful levels at the front. Aimed horizontally, the ADC Waveguide delivers sound only to the audience area, providing uniform direct-field SPL and significantly reducing the amount of sound reflections off the ceiling. This provides an increase in mid- to high-frequency intelligibility of 6 dB in most applications. The ADC Waveguide also provides lower distortion and very smooth uniform frequency response.



Rectangular horizontal coverage, with even front-to-back SPL distribution



Vertical Dispersion - projection straight to the audience

VARIPLEX™ Three-Way Systems for Highest Clarity and Intelligibility

- All VARIPLEX™ systems feature a 3-way design for absolute clarity and intelligibility throughout the theater.
- Asymmetric Directed Coverage Technology for even coverage of the room
- Very uniform frequency response
- Ring Mode Decoupling (RMD®) improves vocal clarity
- Low profile - only 40 cm depth

Variplex II XL

3-way very high output system for large rooms

Variplex II

3-way system for medium to large rooms, triamp operation or with internal MF/HF crossover for biamp operation.

Variplex M-Matinee

A 3-way system designed for mid-sized rooms providing all benefits of a three-way design, including the unique asymmetric directed coverage of all Variplex systems.

Can be operated passive 3-way or biamp.

RMD™ THX CINEMA

RMD™ THX CINEMA

RMD™

Specifications	Variplex II XL	Variplex II	Variplex M
Frequency Range	34 Hz - 16 kHz	34 Hz - 16 kHz	45 Hz - 18 kHz
Sensitivity, 1 W/1 m (LF/MF/HF)	104/109/112 dB	101/109/112 dB	104 dB
Max. SPL/1 m (calc.) (ave./peak)	130 / 136 dB	130 / 136 dB	127 / 133 dB
Crossover Frequency	500 Hz / 1300 Hz	500 Hz / 1300 Hz	500 Hz
Long-term Power Handling (LF/MF/HF)	1.600/400/75 W	800/400/75 W	500 / 300 W
Program Power (LF/MF/HF)	3.200/800/150 W	1.600/800/150 W	1.000 / 600 W
Short-term Power Handling (LF/MF/HF)	6.400/1.600/300 W	3.200/1.600/300 W	2.000 / 1.200 W
Coverage Horizontal (long axis/short axis)	90°	90°	90°
Coverage Vertical (up/down)	20°/30°	20°/30°	20°/30°
HF driver	ND6-8	ND6-8	DH2T
MF driver	2 x EV8DH	2 x EV8DH	2 x EV8D
LF driver	4 x DL15ST	2 x DL15ST	2 x EV15G
Nominal Impedance	2 x 4 / 4 / 8 Ohms	4 / 4 / 8 Ohms	4 / 4 Ohms
Dimensions (Height/Width/Depth) in mm	1924 / 1296 / 396	1924 /648 / 396	1924 / 648 / 396
Weight (net)	139 kg	74 kg	72.6 kg

Two-Way Systems for Large Rooms

TS550D-LX

Large format two-way system with very high power handling capability for large rooms.
Biamped operation only.

TS9040D-LX
TS9040D

Large format two-way system with high power handling capability for large rooms.

TS9040D-LX for biamped operation only, TS9040D for single channel operation with internal x-over.

Specifications	TS550D-LX	TS9040D-LX	TS9040D
Frequency Range	30 Hz - 20 kHz	32 Hz - 20 kHz	32 Hz - 20 kHz
Sensitivity, 1W/1m (LF/HF)	100 / 111 dB	100 / 111 dB	100 dB
Max.SPL/1m (calc.) (ave./peak)	131 / 137 dB	129 / 135 dB	129 / 135 dB
Crossover Frequency	500 Hz	500 Hz	500 Hz, internal
Long-term Power Handling (LF/HF)	1.200 / 75 W	800 / 75 W	800 W
Program Power (LF/HF)	2.400 / 150 W	1.600 / 150 W	1.600 W
Short-term Power Handling (LF/HF)	4.800 / 300 W	3.200 / 300 W	3.200 W
Coverage (H x V)	90° x 40°	90° x 40°	90° x 40°
HF driver	ND6X-8	ND6X-8	ND6X-8
LF driver	2 x EVX155	2 x DL15ST	2 x DL15ST
Nominal Impedance	4 / 8 Ohms	4 / 8 Ohms	4 Ohms
Dimensions (Height/Width/Depth) in mm	1816 / 681 / 947	1816 / 681 / 947	1816 / 681 / 947
Weight (net)	74,8 kg	74,8 kg	77,0 kg

Two-Way Systems for Smaller and Medium Venues

RMD™

TS 940D-LX
TS 940D

Mid-size system for medium size rooms, utilizing same components as TS9040 but more compact HP940 horn.

TS940D-LX for biamped operation, TS940D with internal x-over for single channel drive.

BIPLEX-M

2-Way High-Output Fullrange system with high sensitivity in a short horn-loaded, vented LF enclosure.

- 2“ voice coil (titanium diaphragm)
- HF-horn features Varipath™

TS992M

Very compact and ultra-low profile system for smaller rooms with limited space - only 25,4 cm depth.

Specifications	TS940D-LX	TS940D	TS992M	BIPLEX-M
Frequency Range	32 Hz - 20 kHz	32 Hz - 20 kHz 3	38 Hz - 18 kHz	50 Hz - 18 kHz
Sensitivity, 1W/1m (LF/HF)	100/111 dB	100dB	100dB	100 dB
Max.SPL/1m (calc.) (ave./peak)	129 / 135 dB	129 / 135 dB	130 dB	132 dB
Crossover Frequency	500 Hz	500 Hz, internal	1300 Hz, internal	1.600 Hz
Long-term Power Handling (LF/HF)	800 / 75 W	800 W	400 W	400 W
Program Power (LF/HF)	1.600 / 150 W	1.600 W	800 W	800 W
Short-term Power Handling (LF/HF)	3.200 / 300 W	3.200 W	1.600 W	1.600 W
Coverage (H x V)	90° x 40°	90° x 40°	90° x 50°	75° x 60°
HF driver	ND6- X	ND6- X	DH2T	DH2T
LF driver	2 x DL15ST	2 x DL15ST	EV15-G	EV15-G
Nominal Impedance	4 / 8 Ohms	4 Ohms	8 Ohms	8 Ohms
Dimensions (H/W/D) in mm	1354 / 572 / 447	1354 / 572 / 447	1200 / 660 / 254	838 / 673 / 448
Weight (net)	58,2 kg	60,4 kg	35,0 kg	31,3 kg

Subwoofers

TL880D

Dual 18 inch very low frequency subwoofer, EVX180B equipped, with high power handling capacity down to 23 Hz (-10 dB)

TL880DM

(not shown)
Dual 18 inch very low frequency sub, EV18-S long excursion 400 W woofer with solid output to 27 Hz.

TL440 / TL440M

Single 18 inch version of TL880D / TL880DM.
High acoustic output to 33 Hz.

TL18-1ES

Ultra-low profile subwoofer to go with TS992 series. An ideal solution when space is limited but high performance required.

THX CINEMA RMD™

THX CINEMA RMD™

RMD™

Specifications	TL880D	TL880DM	TL440	TL440M	TL18-1ES
Frequency Range	23 Hz - 80 Hz	27 Hz - 80 Hz	33 Hz* - 80 Hz	33 Hz* - 80 Hz	38 Hz - 80 Hz
Sensitivity, 1 W/1 m (full/half-space)	99 / 105 dB	99 / 105 dB	96 / 102 dB	96 / 102 dB	96 / 102 dB
Max. SPL/1 m (calc.) (ave./peak)	136 / 142 dB	133 / 139 dB	124 / 130 dB	122 / 128 dB	122 / 128 dB
Long-term Power Handling	1.200 W	800 W	600 W	400 W	400 W
Program Power	2.400 W	1.600 W	1.200 W	800 W	800 W
Short-term Power Handling	4.800 W	3.200 W	2.400 W	1.600 W	1,600 W
Coverage (<125 Hz)	omnidirectional	omnidirectional	omnidirectional	omnidirectional	omnidirectional
LF driver	2 x EVX180B	2 x EVS18-S	1 x EVX 180B	1 x EVS 18-S	1 x DL18-MT
Nominal Impedance	4 Ohms	4 Ohms	8 Ohms	8 Ohms	8 Ohms
Dimensions (Height/Width/Depth) in mm	1210 / 762 / 605	1207 / 762 / 605	1003 / 572 / 559	1003 / 572 / 559	1193 / 680 / 254
Weight (net)	72.6 kg	70.8 kg	49 kg	49 kg	43 kg

* 24 Hz in step-down mode

Surround Speaker Systems

SL12-2V / SL10-2V (not shown)

High-Output 2-Way
THX approved Digital Dynamics Capable SL10-2 very compact with 10" woofer SL10-2V including wall mounting material multi angle mounting kit optional

FR10-2N & FR12-2N

High-Output 2-Way
15° slant design including wall mounting material

SL6.2

Full-Bandwidth overload protection. Strong-Arm-Mount™ for easy, flexible aiming. Lightweight, unobtrusive plastic enclosure. Easy access input terminals

SL 8.2

Ultracompact 8" / 2-way molded cabinet. Full bandwidth protection. Strong-arm-mount for easy, flexible aiming

Specifications	SL10-2V	SL12-2V	FR10-2N	FR12-2N	SL 6.2	SL 8.2
Frequency Range	60Hz - 20 kHz	70Hz - 20 kHz	50Hz - 18 kHz	50 Hz - 18 kHz	62 Hz - 20 kHz	48 Hz - 20 kHz
Sensitivity, 1W/1m	93 dB	93 dB	95 dB	95 dB	94 dB	94 dB
Max.SPL/1m (calc.) (ave./peak)	113 / 119 dB	116 / 121 dB	117 / 123 dB	117 / 123 dB	122dB	125 dB
Long-term Power Handling	100 W	200W	150 W	150 W	150 W	200 W
Program Power	200 W	400 W	300 W	300 W	300 W	400 W
Short-term Power Handling	400 W	800 W	600 W	600 W	600 W	800 W
Coverage (H x V)	100° x 100°	100° x 90°	90° x 60°	90° x 60°	100° x 80°	100° x 100°
LF driver	10" woofer	12" woofer	10" woofer	12" woofer	2 x 6" woofer	8" woofer EV8L
HF driver	1" compression dr.	DH2010A	1" compression dr.	1" compression dr.	1" dr. on waveguide	1" DH2005
Nominal Impedance	8 Ohms	8 Ohms	8 Ohms	8 Ohms	8 Ohms	8 Ohms
Dimensions (Height/Width/Depth) mm	476 / 318 / 275	535 / 476 / 335	595 / 420 / 305	596 / 420 / 305	419 /228 / 298	451 / 282 / 263
Weight (net)	10,5 kg	21,4 kg	15,6 kg	15,9 kg	5,3 kg	8,4 kg

CPS Contractor Precision Series Amplifiers

The CPS Series of high-performance amplifiers offers unmatched dynamic range capability that meets and exceeds the demands of cinema applications.

- All CPS amplifiers are THX approved
- All CPS amplifiers provide a headroom of 30% over the continuous power rating
- The on-board dynamic limiter circuit ensures that the THD is limited to 1% maximum
- Outstanding sonic quality
- Very extensive common safety package includes: peak-current limiter, inrush-current limiter, thermal protection (heat sinks and transformers), DC-, HF-, Back-EMF protection, short-circuit and no-load protection
- CPS1 and CPS2 have rear-mounted dB-scaled level controls and XLR/Phoenix type inputs and Phoenix type outputs.

- The CPS1 can deliver up to 450 watts of power at 1kHz into 4 ohms. The CPS 1 has been extremely popular in smaller venues such as houses of worship, retail spaces, and entertainment venues where background or foreground music is needed.
- The CPS2 incorporates all the advanced features of the CPS1 but can deliver up to 600 watts of power at 1kHz into 4 ohms.

Crossover retrofit cards for biamped EV cinema systems are available for the CPS 1 and CPS 2. These 24 dB Linkwitz-Riley filters are available at common crossover frequencies. In a two channel operation (channel A for LF, channel B for HF) the CPS amplifiers provide more output for the LF channel than rated for both channels driven, as the other channel is not driven to its maximum. The table below shows power ratings for the CPS 2 with both channels driven into 4 ohms, channel A 100 Hz burst (20 ms on, 480 ms off), channel B continuous signal 1 kHz:

	Channel B	Channel A
(similar for CPS1)	50 watt	800 watt
	100 watt	760 watt
Three crossover retrofit cards are available:	500 Hz	for TS9040D-LX, Variplex Biamp (LF/MH) TS550D-LX, TS940D-LX
	800 Hz	for TS940D-LX
	1200 Hz	for TS992-LX

CPS 2.4, CPS 2.6, CPS 2.8 and CPS 2.11 feature Class H technology for improved electrical efficiency in a 2RU package, rear mouinted, 1db detent level controls, XLR/Phoenix type inputs and Phoenix type outputs, barrier strip outputs and remote controllable power on/off function.

- The **CPS2.4** is ideal for smaller full range systems or larger mid/high frequency amplification in larger installations. The CPS2.4 is an ideal companion to surround speaker systems.
- **CPS2.6** is the workhorse of the line. Its 600 watts of compact power is perfect for mid level full range installs.
- At 800 watts per channel the **CPS2.8** is the best values in the line. It can power a wide range of speaker cabinets either in multi-way or full range modes for a large range of fixed installation jobs.
- No power amplifier on the market can offer such a high level of power performance and reliability. At 1100 watts/channel the **CPS2.11** can power largest installations.

Specifications*	CPS 1	CPS 2	CPS 2.4	CPS 2.6	CPS 2.8	CPS 2.11
Maximum power (1 kHz; THD <1%)						
2 Ohms	650 W	850 W	600 W	900 W	1.100 W	1.600 W
4 Ohms	450 W	600 W	400 W	600 W	800 W	1.100 W
8 Ohms	280 W	350 W	240 W	350 W	500 W	600 W
Rated power (20 Hz–20 kHz; THD <0.2%)						
4 Ohms	350 W	500 W	300 W	500 W	700 W	900 W
8 Ohms	230 W	300 W	150 W	250 W	350 W	450 W
Maximum bridged output (1,000 Hz; <1% THD)						
4 Ohms	1.300 W	1.700 W	1.240 W	2.200 W	2.200 W	3.200 W
8 Ohms	900 W	1.200 W	800 W	1.600 W	1.600 W	2.200 W
Slew rate	25 V/µs	30 V/µs	35 V/µs	35 V/µs	35 V/µs	35 V/µs
Total harmonic distortion	<0.05%	<0.05%	<0.05%	<0.05%	<0.05%	<0.05%
Inter-modulation distortion (SMPTE)	<0.08%	<0.08%	<0.02%	<0.02%	<0.02%	<0.02%
Crosstalk (at 1,000 Hz)	<-80 dB	<-80 dB	<-80 dB	<-80 dB	<-80 dB	<-80 dB
Input impedance (balanced)	20 kOhms	20 kOhms	20 kOhms	20 kOhms	20 kOhms	20 kOhms
Signal-to-noise ratio (dB A-weighted)	>105 dB	>105 dB	>105 dB	105,5 dB	107 dB	107 dB
Dimensions (H x W x D) mm	133 x 483 x 386	133 x 483 x 386	88 x 483 x 369	88 x 483 x 369	88 x 483 x 369	88 x 483 x 369
Net weight	15 kg	16 kg	13.5 kg	15 kg	16 kg	8.15 kg

* Both channels driven into 8 Ohms unless other specified

Precision Series Remote Amplifiers

P3000 RL

The flagship, with 2 x 1300 watts into 4 ohms and 2 x 1800 watts into 2 ohms: the digitally controlled version of the legendary P3000 amplifier. Speaker outputs on Speakon NL4 connectors.

P1200 RL

The universal, with 2 x 600 watts into 4 ohms and 2 x 850 watts into 2 Ohms. Speaker ouputs on barrier strip.

P1200 RT

High-impedance output for 100/70V-lines with 2 x 590 watts. The dynamic limiter circuit includes the output transformer and limits THD to 1% maximum. Speaker outputs on barrier strip.

P900 RL

Featuring 2 x 450 watts into 4 and 2 x 650 watts into 2 ohms the P900RL is dedicated for HF drive in multi-way systems. Speaker outputs on barrier strip.

P900 RT

High-impedance output for 100/70V-lines with 2 x 410 watts. Speaker output on barrier strip.

Specifications	P900 RL			P1200 RL			P3000 RL			P900 RT		P1200 RT	
	8Ω	4Ω	2Ω	8Ω	4Ω	2Ω	8Ω	4Ω	2Ω	100V	70 V	100V	70 V
Continous Output Power (1 kHz, THD 1%)	280 W	450 W	650 W	380 W	600 W	850 W	850 W	1300 W	1800 W	410 W	400 W	590 W	580 W
Rated Output Power (20 Hz-20 kHz, THD <0,2%)	230 W	350 W	-	300 W	500 W	-	750 W	1200 W	-	350 W	350 W	500 W	500 W
Maximum Bridged Output (1 kHz, THD 1%)	900 W	1300 W	-	1200 w	1700 W	-	2600 W	3600 W	-	-	-	-	-
THD @ Rated Output Power	< 0.05%									<0.1%	<0.2%	<0.1%	<0.2%
DIM 30	<0.03%						<0.01%			<0.2%	<0.3%	<0.2%	<0.3%
Intermodulation (SMPTE)	<0.08%						<0.001%			<0.1%	<0.3%	<0.1%	<0.3%
Signal-to-Noise Ratio	> 105 dB									>100 dB			
Frequency Response (-1 dB)	20 Hz - 20 kHz									45 Hz - 20 kHz			
Dynamic Audio Limiter	THD </= 1% (Inputsignal </= + 20 dBu												
Protections	Hi-Temperature, DC, HF, Back EMF, Peak Current Limiter, Inrush Current Liminter, Power On Delay												
Cooling	3(4)-stage fan, front-to-rear cooling												
Input Sensivity and Impedance	1.55 V (+6dBu), 20 kOhm, XLR Input												
Maximum Input Level	8.7 V (+21 dBu)												
Serial Interface	Network: CAN, 2 RJ45 (CAT-5 Cabling), RS-232 for media control systems												
Control Logic In- and Outputs	2 x 0V 5V free configurable, Easy-Remote												
Loudspeaker Connectors	Barrier Strip						Speakon NL4			Barrier Strip			
Dimensions (Width x Height x Depth)	483 x 132.5 x 390 mm (3RU)												
Net Weight	16 kg			17 kg			30 kg			24 kg		25 kg	

All measurements both channels driven into 8 ohms unless other specified.

Dx38 Digital Sound System Processor

The Dx38 sets new standards for digital loudspeaker controllers and processors, providing 48-bit filter algorithms, 24-bit AD/DA conversion and a dynamic range of more than 115 dB. The Dx38 can be used in networks of up to 31 controllers with a maximum networking distance of 1,200 meters. Real-time controlling and configuration is either through the front panel or through a PC with an RS-232, MIDI, or RS-485 bus for networking. EV's unique RACE 2.0 software (see next page) allows for complete control with a PC compatible with Windows 95/98/NT/ME/2000).

The Dx38 is a 2 input/4 output controller with a virtual third input source. Its mono summation of both input channels maximizes flexibility.

Two configuration modes allow an added degree of flexibility for experienced users. Additionally, the Dx38 can handle up to 30 user memories and 50 factory presets for EV speaker systems.

Dx38 options and accessories

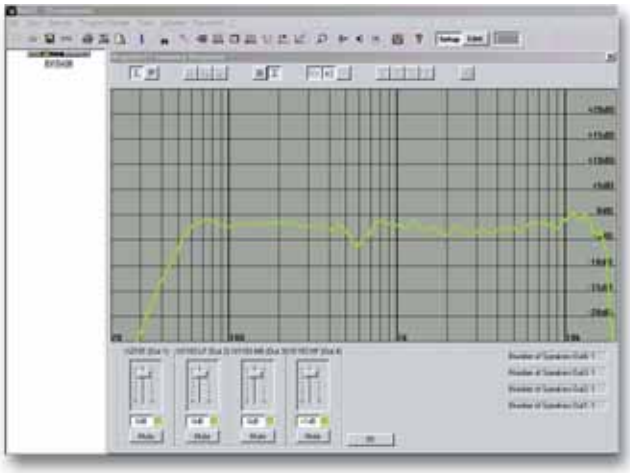
- RS-232 interface is factory installed
- RS-485 network interface (NRS 90247)
- Input transformer (NRS 90244)
- Contact closure interface (NRS 90246) for external user preset selection (8 contacts) (pin 1-8: activation; pin 9: common)
- PA 1 (clear acrylic cover)

Specifications	Dx38
Controller type	2 (+1) in / 4 out
Data format	24-bit linear AD/DA conversion 48-bit processing
A/D conversion	24-bit / sigma-delta (linear phase) 128 times oversampling
D/A conversion	24-bit / sigma-delta 128 times oversampling
Sampling rate	48 kHz
DSP type	2 x 24-bit Motorola®
Frequency response	20 Hz–20 kHz (-0.5 dB)
Dynamic range (typical)	>115 dB
THD (without input transformer)	<0.01%
THD (with input transformer)	<0.05%
Input connectors	2 XLR (balanced)/parallel out
Input voltage (nominal)	1.55V/+6 dBu
Maximum input voltage	24.5V/+30 dBu
Input impedance	20 kOhms
Common mode rejection	>40 dB
Output connectors	4 XLR (balanced)
Output voltage (nominal)	1.55V/+6 dBu
Maximum output voltage	8.7V/+21 dBu
Output impedance	<100 Ohms
Minimum load impedance	600 Ohms

Specifications (continued)	Dx38
Frequency crossovers (slopes)	6, 12, 18, 24 dB/oct.
Frequency crossovers (designs)	Butterworth/Bessel/Linkwitz-Riley
Filters (inputs and outputs)	26 (full) parametric equalizers low-shelving EQ (6/12 dB slope) LPN (low-pass notch) switchable hi-shelving EQ (6/12 dB slope) lo-cut filter (6 or 12 dB slope) B6 alignment hi-cut filter (6 or 12 dB slope) all-pass filter (1st or 2nd order) phase invert (180°)
Digital compressor	4 (1 per output) with graph
Digital limiter	4 (1 per output) with graph
Delay	3 master delays (2–900 ms)
	4 channel delays (0–900 ms)
Delay increment	21 µsec.
MIDI in/out/thru	Data dump; master/slave operation; remote control
LCD readout (with light)	122 x 32 px
Locking function	key lock
Dimensions (H x W x D)	43.6 x 483 x 374 mm (1 RU)
Net weight	5.0 kg

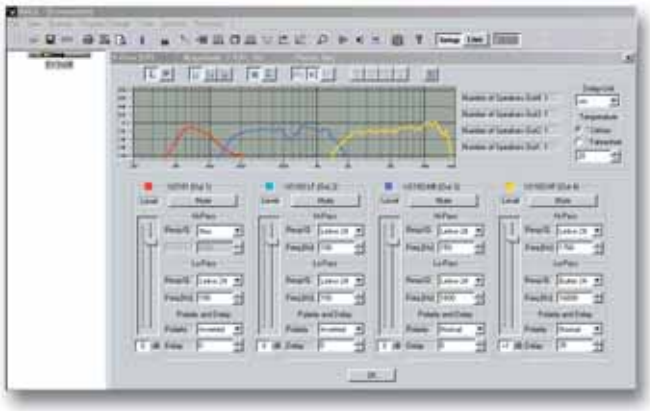
RACE Software

The free R.A.C.E. (**R**ealtime **A**coustical **C**luster **E**ditor) software is a unique tool for designing preset configurations. The included files with measured frequencies and phase response for various EV speakers and amplifiers allow it to display the entire system's acoustical response in the free field without any room influence. RACE is the first software for digital controllers that offer extensive filtering to make visible the processes that maximize system performance.

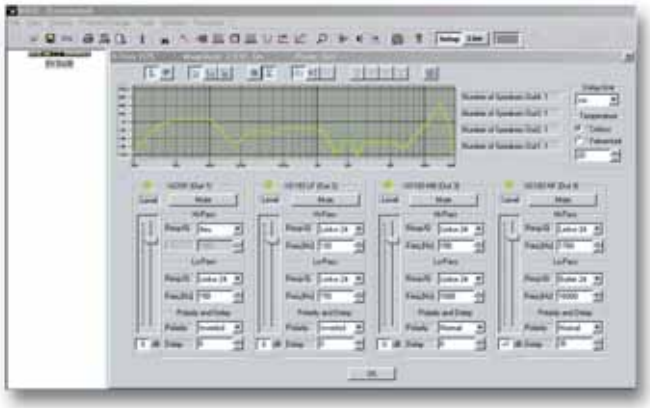


Signal Flow Diagram window: Input VU-meters: master EQ; master delay with independent mono-sum delay; input/output routing; channel EQ, crossover design; output delay; compressor/limiter. Output VU-meters: LED indication of activated filters etc.; mute indication; real-time display of all LED indications when connected to Dx38.

Crossover window: Individual outputs: level adjustment; Lo/Hi-pass design; sweepable crossover frequency; polarity; alignment delay; mute. Global features: delay unit selection; temperature in C or F; show filter function; resulting system response shown separated or summed-up in magnitude or phase include delays, components, and filters.

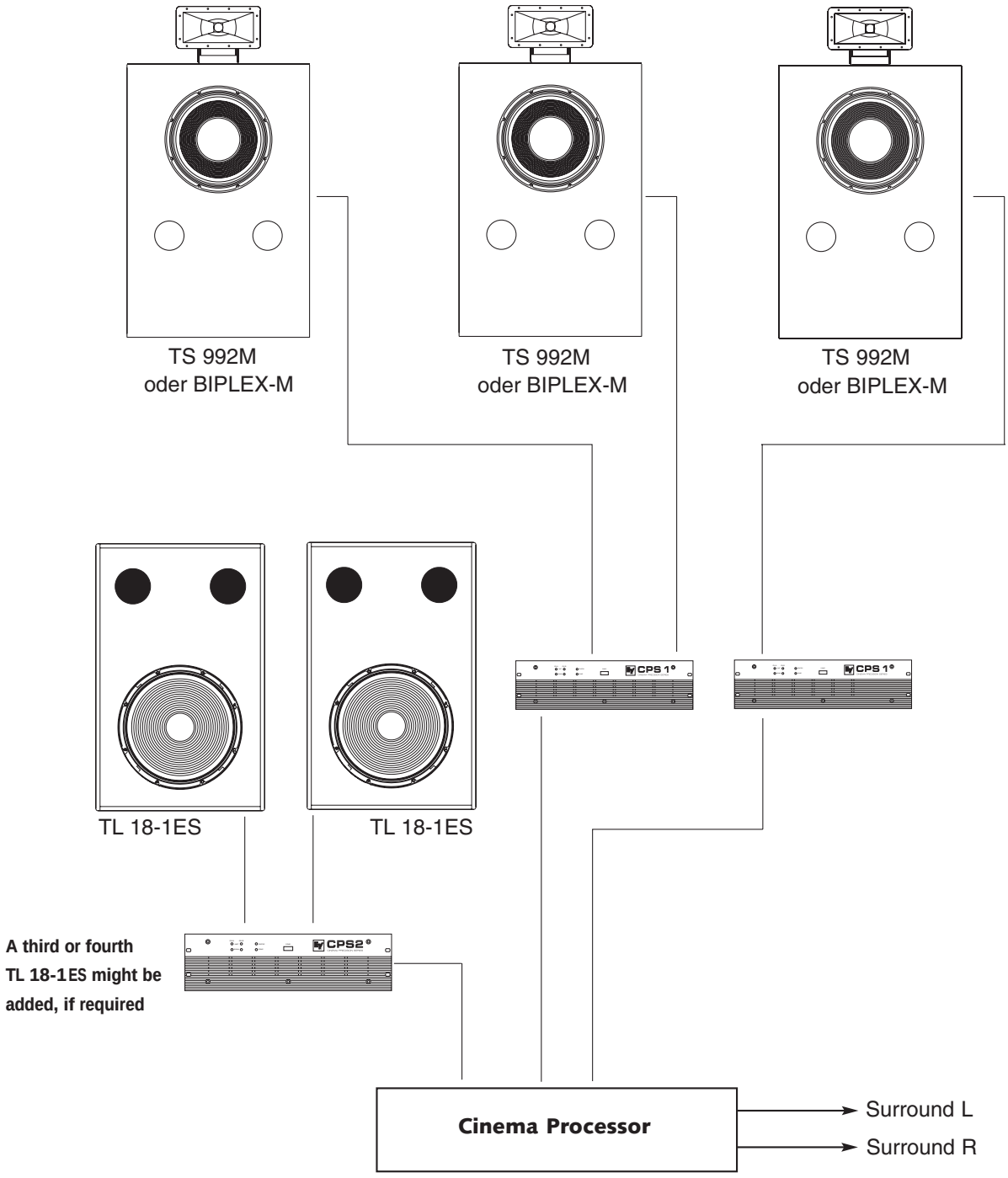


Acoustical Response window: However, adding the acoustical data of the raw components and amplifiers to this file, the display shows the real acoustical response caused by the actual parameter settings. Any change of a parameter is visible and audible immediately. The big advantage of this view is the independence of any room influence. RACE is an industry first and unique in that the software shows the true frequency response of EV components in real-time as they behave in a free field.

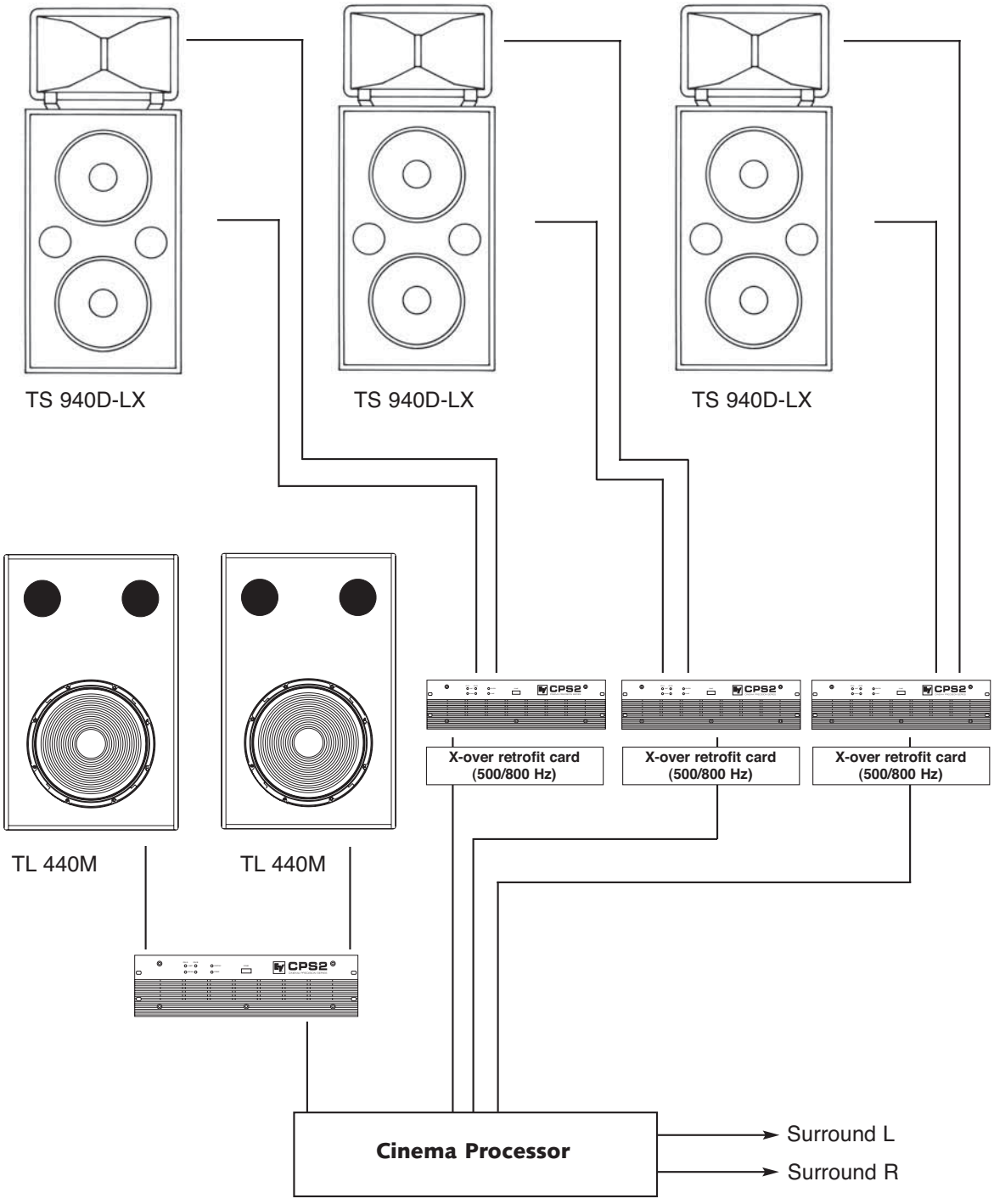


Summed Acoustic Output window: The complex summation of all filters, levels and delays results in the viewed electrical transfer function of the Dx38. It's quite difficult to derive any idea of the sound quality on this graph.

Two-Way Systems for Smaller Rooms

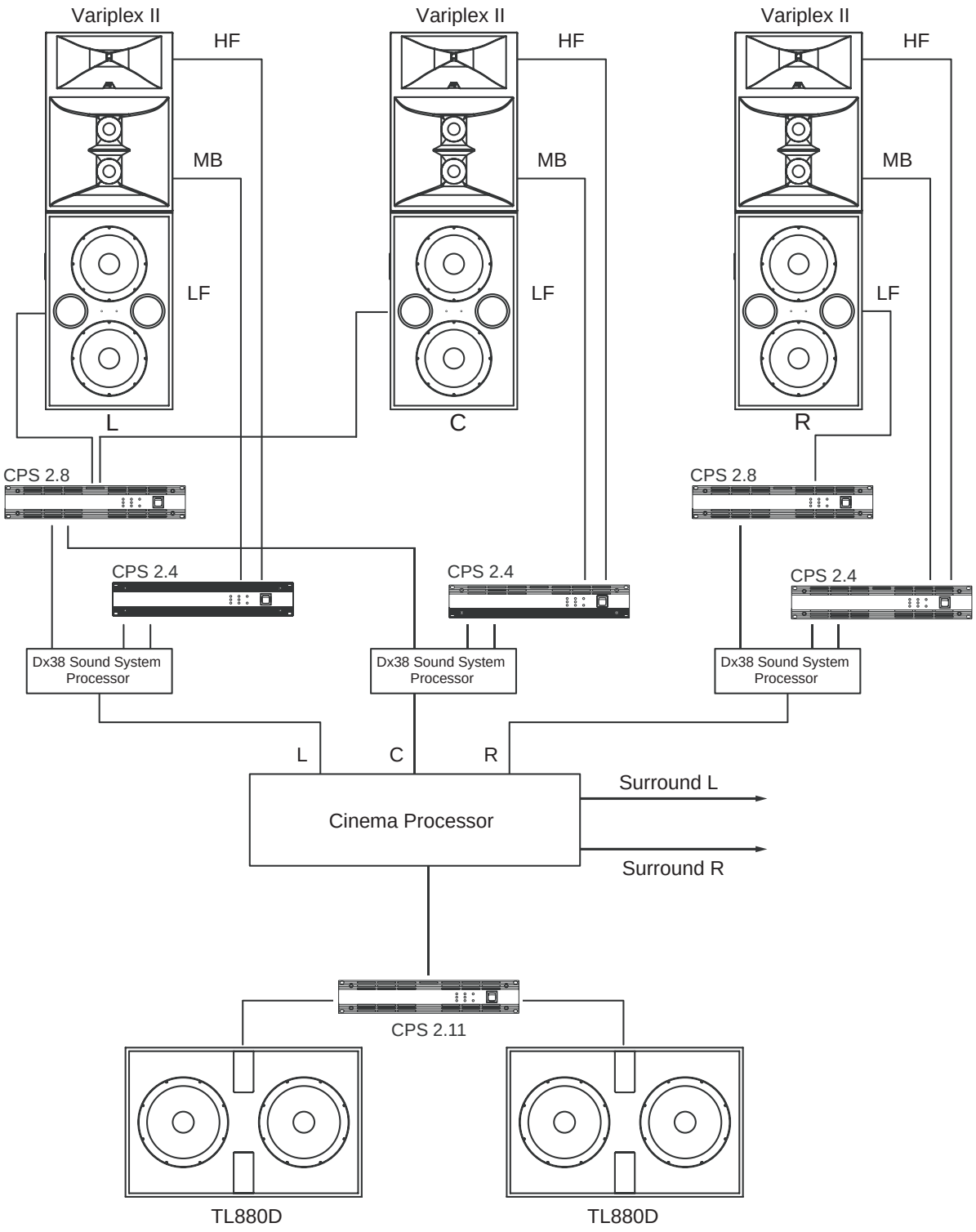


Two-Way biamped Systems for Medium Rooms

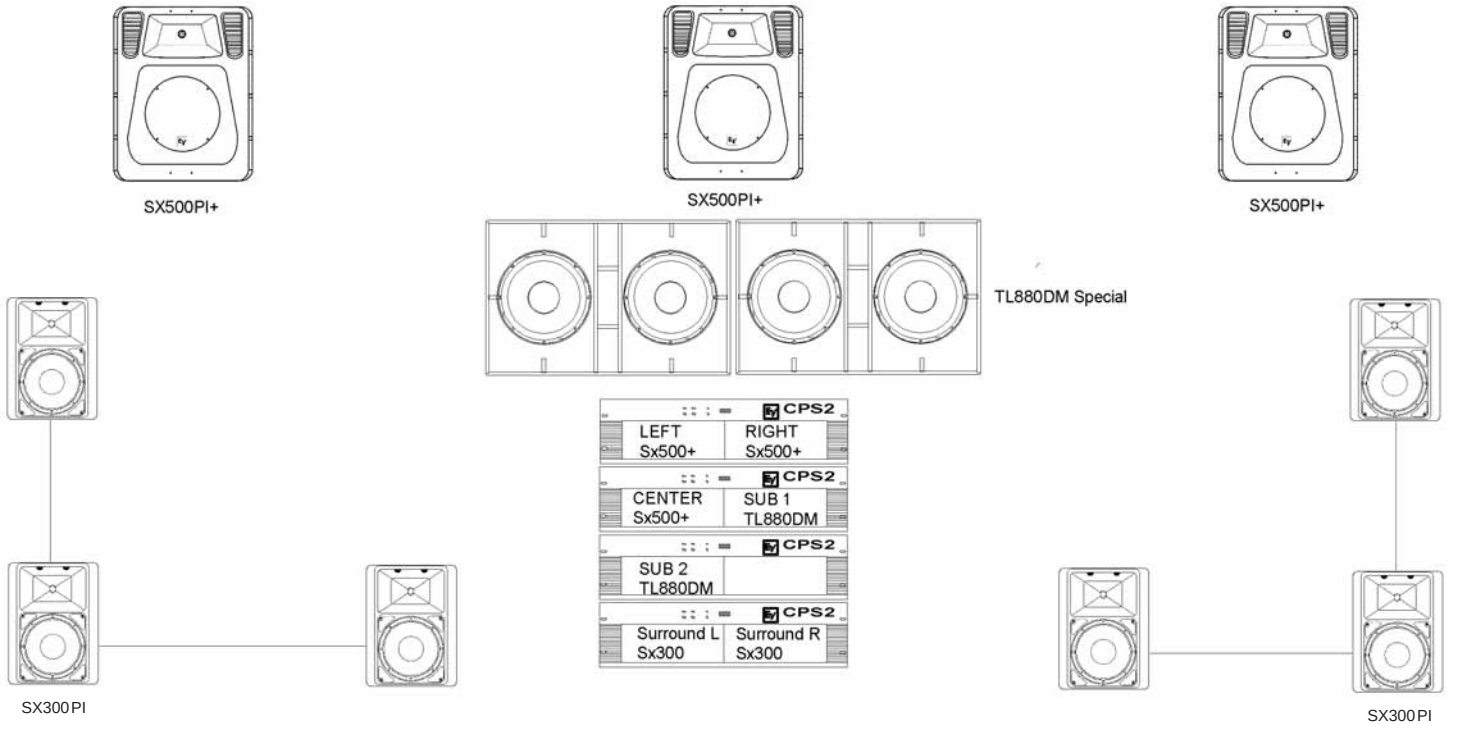


A similar set up is possible with Variplex™ II (x-over @ 500 Hz) and Variplex M (x-over @ 500 Hz).

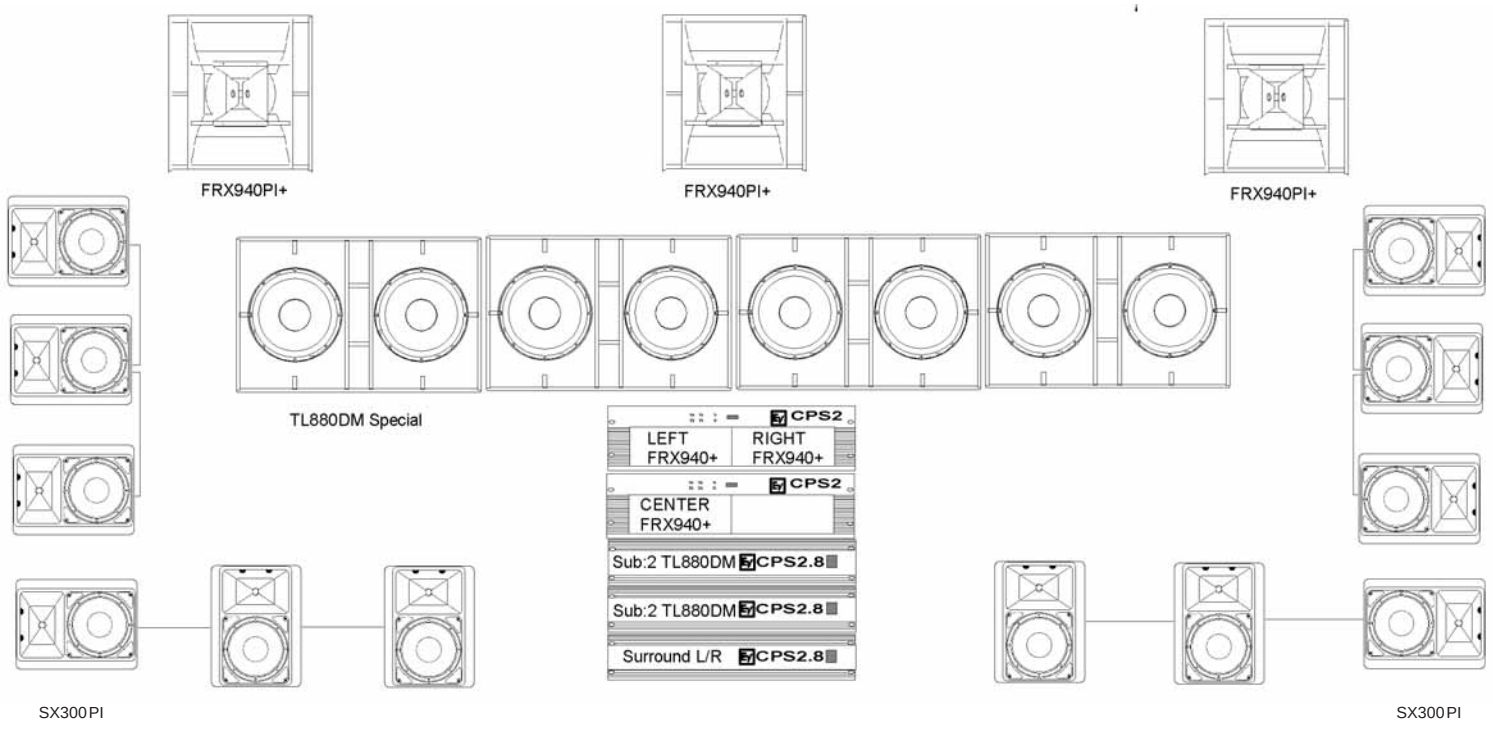
Three-way triamped VARIPLEX™ II (THX) for larger rooms



Smaller Outoor Cinema Application, 200 to 500 seats



Large Outoor Cinema Application, 500 to 1000 seats



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