

SONODYNE[®]



CINEMA SOLUTIONS

MADE IN INDIA
since 1970

CINEMA SOLUTIONS

The new CS range of cinema products are designed to meet digital cinema needs from small to large screens.

The range includes main LCR speakers, Surround Speakers, Subwoofers, and Power Amplifiers. Together they blend beautifully in tone, loudness, and dynamics, to reproduce multichannel audio at its best.

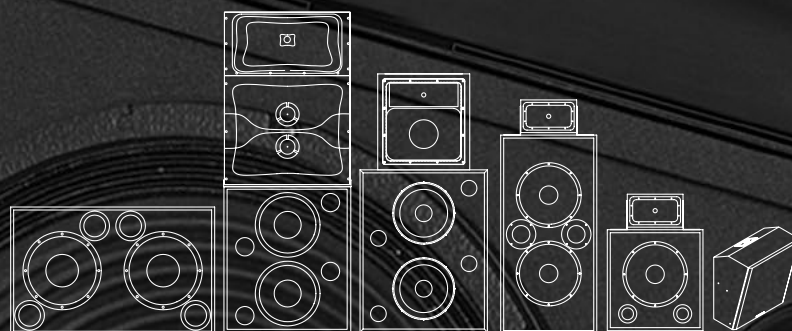
The common design elements include:

- Main channels and surrounds are horn loaded; all horns were designed in-house to ensure predictable coverage and optimal matching with HF and MF transducers
- All transducers have large voice coils to prevent damage from long duty cycles
- Elaborate crossovers result in smooth, and detailed response, especially in the critical midrange
- The wooden cabinets use both MDF and plywood, and are highly braced for rigidity
- All mechanical parts are tooled and perfectly matched to ensure easy installation and no extraneous noises

All these products are designed and manufactured in our factories in Mumbai and Kolkata, India.



L,C,R SMALL FORMAT
L,C,R MEDIUM FORMAT
SURROUNDS
SUBWOOFERS
POWER AMPLIFIERS
BACKGROUND MUSIC & PAGING



CS 1000 SERIES

L, C, R, small format

The CS 1000 series comprises 2 way speakers that are designed for L, C, R main channel applications. Compact, yet powerful, they are ideal for the smallest cinema screens that require detailed, full-bodied sound from main channels. The drivers are time-aligned and there is tight directivity control. Due to extended LF response, integration with the subwoofer channel is seamless. Extensive power handling tests ensure hassle free, minimum maintenance operations.



HIGHLIGHTS

- 3 models
- 2 way/ 3 way design with inbuilt crossover
- Smooth and wide frequency response
- Sturdy, compact cabinet with shallow profile
- Controlled directivity with provision to tilt to the horn

	CS 1015	CS 1025	CS 1132B
DESCRIPTION	2 way screen channel speaker	2 way screen channel speaker with high power LF	3 way bi-amplified compact speaker
ENCLOSURE: LF	Baffle - 25mm PPB sides and back, 19mm PPB. Extensive bracing	Baffle - 25mm PPB sides and back, 19mm PPB. Extensive bracing	Baffle - 25mm PPB sides and back, 19mm PPB. Extensive bracing
M/HF HORN	Injection moulded industrial grade plastic	Injection moulded industrial grade plastic	Injection moulded industrial grade plastic
TRANSDUCER: LF	1 x 15" woofer, 3" VC	2 x 15" woofer, 3" VC	2 x 15" woofer, 3" VC
HF	1 x 1" throat, 2" VC compression driver	1 x 1" throat, 2" VC compression driver	1 x 1" throat, 2" VC compression driver
MF	NA	NA	1 x 8" woofer, 2" VC
NOMINAL IMPEDANCE	8Ω	4Ω	LF: 4Ω, MF + HF: 8Ω
POWER: CONTINUOUS	400W	800W	LF: 800W; MF + HF: 200W
PROGRAM	800W	1600W	LF: 1600W; MF + HF: 400W
PEAK	1600W	3200W	LF: 3200W; MF + HF: 800W
SENSITIVITY (1W/1M)	98dB	101dB	LF: 101dB; MF + HF: 100dB
MAX SPL: CONTINUOUS	124dB	130dB	LF: 130dB; MF + HF: 123dB
PEAK	130dB	136dB	LF: 136dB; MF + HF: 129dB
FREQUENCY RANGE (- 3dB)	55Hz ~ 17kHz	40Hz ~ 17kHz	40Hz ~ 18kHz
(-10dB)	50Hz ~ 18kHz	30Hz ~ 18.5kHz	30Hz ~ 19.5kHz
NOMINAL COVERAGE H x V	90° x 50°	90° x 50°	90° x 50°
CROSSOVER FREQUENCY	2.6kHz	2.6kHz	400Hz (Active), 1.3kHz (Passive)
INPUTS	Spring loaded binding post	Spring loaded binding post	Spring loaded binding post
FINISH	LF - Black PVC, HF - Black, Brackets - black powder coated	LF - Black PVC, HF - Black, Brackets - black powder coated	LF - Black PVC, HF - Black, Brackets - black powder coated
M+HF/HF MOUNTING BRACKET AND HARDWARE	Provided, for mounting on top of LF cabinet	Provided, for mounting on top of LF cabinet	Provided, for mounting on top of LF cabinet
DIMENSION HxWxD (LF)	600mm x 575mm x 400mm	1190mm x 575mm x 400mm	972mm x 762mm x 370mm
(M+HF)	200mm x 335mm x 222mm	200mm x 335mm x 222mm	575mm x 550mm x 300mm
WEIGHT: NET (LF)	30kg	52kg	60.8kg
NET (M+HF)	6.1kg	6.1kg	29.1kg

CS 2100 SERIES

L, C, R, medium format



The CS 2100 has 4 models for small to medium sized screens. All models are designed with high performance in mind with the following highlights:

HIGHLIGHTS

- 4 models
- 3 way design with bi-amp or triamp modes
- Suits both in-wall and platform installations. Shallow profile relieves the need for a large installation space behind the cinema screen
- Time-aligned compression and midrange drivers provide accurate imaging and minimum phase cancellations.
- Tight directivity control and angled construction of midrange horn provides uniform coverage.
- Sturdy, compact cabinet with shallow profile
- Specially configured midrange phase plugs result in minimum phase cancellations resulting in intelligibility of vocals.
- The mathematically-designed horn flare keeps distortion within limits.
- Dual 15" LF enclosure available in different power ratings for different hall sizes.
- All 3 sections – LF, MF and HF are optimized to provide flat frequency response inside a cinema hall (considering the influence of hall acoustics).
- Controlled directivity with provision to tilt to the horn

	CS 2131B	CS 2131BX	CS 2131T	CS 2131TX
DESCRIPTION	3 way bi-amplified screen channel speaker	3 way bi-amplified screen ch. speaker with high power LF	3 way tri-amplified screen channel speaker	3 way tri-amplified screen ch. speaker with high power LF
ENCLOSURE: LF	Baffle: 25mm PPB sides & back, 19mm PPB. Extensive bracing Injection moulded industrial grade plastic	Baffle: 25mm PPB sides & back, 19mm PPB. Extensive bracing Injection moulded industrial grade plastic	Baffle: 25mm PPB sides & back, 19mm PPB. Extensive bracing Injection moulded industrial grade plastic	Baffle: 25mm PPB sides & back, 19mm PPB. Extensive bracing Injection moulded industrial grade plastic
M+HF				
TRANSDUCERS	LF: 2 x 15" woofer, 3" VC MF: 2 x 6.5", 1.5" VC HF: 1 x 1.4" throat compression driver, 2.5" VC	LF: 2 x 15" woofer, 3" VC MF: 2 x 6.5", 1.5" VC HF: 1 x 1.4" throat compression driver, 2.5" VC	LF: 2 x 15" woofer, 3" VC MF: 2 x 6.5", 1.5" VC HF: 1 x 1.4" throat compression driver, 2.5" VC	LF: 2 x 15" woofer, 3" VC MF: 2 x 6.5", 1.5" VC HF: 1 x 1.4" throat compression driver, 2.5" VC
NOMINAL IMPEDANCE	LF: 4Ω, MF+HF: 8Ω	LF: 4Ω, MF+HF: 8Ω	LF: 4Ω, MF: 16Ω, HF: 8Ω	LF: 4Ω, MF+HF: 8Ω
POWER: CONTINUOUS PROGRAM PEAK	LF: 800W; MF + HF: 250W LF: 1600W; MF+HF: 500W LF: 3200W; MF+HF: 1000W	LF: 1200W; MF + HF: 200W LF: 2400W; MF+HF: 500W LF: 4800W; MF+HF: 1000W	LF: 800W; MF: 200W, HF: 85W LF: 1600W; MF: 400W, HF: 170W LF: 3200W; MF: 800W, HF: 340W	LF: 1200W; MF + HF: 200W LF: 2400W; MF+HF: 500W LF: 4800W; MF+HF: 1000W
SENSITIVITY (1W/1M)	LF: 101dB; MF + HF: 103dB	LF: 101dB; MF + HF: 103dB	LF: 101dB; MF:107dB; HF:115dB	LF: 101dB; MF + HF: 103dB
MAX SPL: CONTINUOUS PEAK	LF: 130dB; MF + HF: 126dB LF: 136dB; MF + HF: 132dB	LF: 132dB; MF + HF: 126dB LF: 138dB; MF + HF: 132dB	LF: 130dB; MF:133dB; HF:134dB LF: 136dB; MF:139dB; HF:140dB	LF: 132dB; MF + HF: 126dB LF: 138dB; MF + HF: 132dB
FREQUENCY RANGE (-3dB) (-10dB)	40Hz ~ 17kHz 30Hz ~ 18.5kHz	40Hz ~ 17kHz 30Hz ~ 18.5kHz	40Hz ~ 17kHz 30Hz ~ 18.5kHz	40Hz ~ 17kHz 30Hz ~ 18.5kHz
NOMINAL COVERAGE	H 90° x V -30°/+20°	H 90° x V -30°/+20°	H 90° x V -30°/+20°	H 90° x V -30°/+20°
CROSSOVER FREQUENCY	400Hz (active); 1.3kHz (passive)	400Hz (active); 1.3kHz (passive)	Recommended 400Hz; 1.3kHz	Recommended 400Hz; 1.3kHz
INPUTS	Screw type barrier strip	Screw type barrier strip	Screw type barrier strip	Screw type barrier strip
FINISH	LF - Black PVC, HF: Black, Brackets - black powder coated	LF - Black PVC, HF: Black, Brackets - black powder coated	LF - Black PVC, HF: Black, Brackets - black powder coated	LF - Black PVC, HF: Black, Brackets - black powder coated
M+HF/HF MOUNTING BRACKET	Provided, for mounting on top of LF cabinet	Provided, for mounting on top of LF cabinet	Provided, for mounting on top of LF cabinet	Provided, for mounting on top of LF cabinet
DIMENSION HxWxD (LF) (M+HF)	883mm x 762mm x 450mm 1054mm x 762mm x 450mm	883mm x 762mm x 450mm 1054mm x 762mm x 450mm	883mm x 762mm x 450mm 1054mm x 762mm x 450mm	883mm x 762mm x 450mm 1054mm x 762mm x 450mm
WEIGHT NET (LF) NET (M+HF)	55kg 30kg	60.8kg 30kg	55kg 30kg	60.8kg 30kg

CS 3300 SERIES

Surrounds



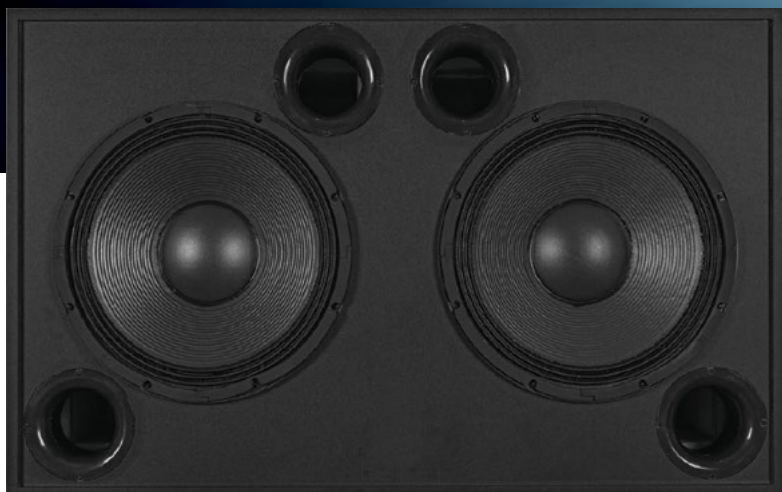
HIGHLIGHTS

- Equipped with precise pattern control HF waveguide to provide uniform coverage throughout the audience seating areas.
- Linear on-axis anechoic frequency response despite angled cabinet.
- High power handling and high SPL help reduce the number of speakers required for a particular SPL.
- Appropriately tilted front baffle and tight vertical coverage ensure focused, reflection-free operation.
- Sturdy light-weight injection-moulded industrial grade plastic cabinet with convenient mounting points and easy to access terminals.

	CS 3321	CS 3322	CS 3323	CS 3324
DESCRIPTION	Cinema surround	Cinema surround	Cinema surround	Cinema surround
ENCLOSURE	MDF	MDF	MDF	MDF
LOW FREQ. TRANSDUCER	1 x 8" woofer, 1.5" voice coil	1 x 10" woofer, 2" voice coil	1 x 10" woofer, 2.5" voice coil	1 x 12" woofer, 3.5" voice coil
HIGH FREQ. TRANSDUCER	1 x 1" throat, 1.35" voice coil	1 x 1" throat, 1.35" voice coil	1 x 1" throat, 1.75" voice coil	1 x 1" throat, 2" voice coil
NOMINAL IMPEDANCE	8Ω	8Ω	8Ω	8Ω
POWER HANDLING CONT.	150W	200W	400W	500W
PROGRAM	300W	400W	800W	1000W
	600W	800W	1600W	2000W
SENSITIVITY (1W/1M)	93dB	95dB	95dB	97dB
MAX SPL CONTINUOUS	115dB	118dB	121dB	124dB
MAX SPL PEAK	121dB	124dB	127dB	130dB
FREQUENCY RANGE (-3dB)	65Hz ~ 19kHz	60Hz ~ 17kHz	60Hz ~ 17kHz	55Hz ~ 17kHz
FREQUENCY RANGE (-10dB)	60Hz ~ 20kHz	55Hz ~ 18kHz	55Hz ~ 18kHz	50Hz ~ 18kHz
NOMINAL COVERAGE	90° x 90°	90° x 90°	90° x 90°	90° x 90°
DOWNWARD FIRING ANGLE	Nominal 20°	Nominal 20°	Nominal 20°	Nominal 20°
INPUT CONNECTIONS	Binding post	Binding post	Binding post	Binding post
MOUNTING	4 x inserts at back for wall mounting with optional wall mount bracket: CS 3300 WB	4 x inserts at back for wall mounting with optional wall mount bracket: CS 3300 WB	4 x inserts at back for wall mounting with optional wall mount bracket: CS 3300 WB	4 x inserts at back for wall mounting with optional wall mount bracket: CS 3300 WB
FINISH	Black	Black	Black	Black
PACKING	Pair	Pair	Pair	Single
DIMENSION HxWxD	432mm x 343mm x 234mm	486mm x 360mm x 234mm	460mm x 460mm x 260mm	618mm x 400mm x 282mm
NET WEIGHT	10.3 kg	11.3kg	11.8kg	17.5kg

CS 2200 SERIES

Subwoofers



With a channel dedicated to it, the subwoofer is a critical sonic element in the cinema soundstage. Digital formats demand dynamic ultra-low frequency response. With high excursion transducers mounted in sturdy cabinets the 2200 Series models are up to the task. The 4" voice coils transducers are subjected to extreme power tests in real world conditions to ensure that they can continuously reproduce the lowest octaves without fault or fatigue.

HIGHLIGHTS

- High excursion subwoofer drivers enable reproduction of the lowest frequencies at high SPL with minimum distortion.
- Large flared ports reduce power compression and wind noise to insignificant levels.
- Heavily braced cabinet eliminates cabinet vibrations at bass frequencies ensuring distortion-free, uncoloured sound.
- Custom design of the driver motor structure ensures continuous operation at high SPL.

	CS 2201	CS 2202
DESCRIPTION	Cinema subwoofer	Cinema subwoofer
ENCLOSURE TYPE	Vented	Vented
ENCLOSURE MATERIAL	Baffle - 25mm PPB sides and back, 19mm PPB. Extensive bracing	Baffle - 25mm PPB sides and back, 19mm PPB. Extensive bracing
TRANSDUCER COMPLEMENTS	1 x 18" subwoofer, 4" voice coil	2 x 18" subwoofer, 4" voice coil
NOMINAL IMPEDANCE	8Ω	4Ω
POWER HANDLING: CONTINUOUS PROGRAM PEAK	800W 1600W 3200W	1600W 3200W 6400W
SENSITIVITY (1 W 1M)	98dB	101dB
MAX SPL: CONTINUOUS PEAK	127dB 133dB	133dB 139dB
FREQUENCY RANGE (- 3dB) (-10dB)	35Hz 25Hz	35Hz 25Hz
REC. CROSSOVER FREQUENCY	80Hz ~ 150Hz, 12dB/octave, Low pass	80Hz ~ 150Hz, 12dB/octave, High pass
RECOMMENDED SUBSONIC FILTER	20Hz 24dB/octave High pass	20Hz 24dB/octave High pass
INPUT CONNECTOR	Colour coded binding post	Colour coded binding post
FINISH	Black PVC	Black PVC
DIMENSIONS HxWxD	1010mm x 674mm x 610mm	765mm x 1220mm x 610mm
NET WEIGHT	66kg	94kg

SLA 3000 SERIES

Power Amplifiers



The SLA are 2RU power amplifiers and include 9 models, both dual and 4 channel. The SLA Series provides a broad choice of power output so you can select a model that will ideally match the power requirements for your application. For even further flexibility all models can operate in 3 modes: dual channel mode; parallel (mono) mode; and bridge mode.

The SLA Series power amplifiers employ a large number of matched complementary devices in parallel having linear transfer characteristic for low distortion and high SOA guaranteeing safe operation at elevated power levels.

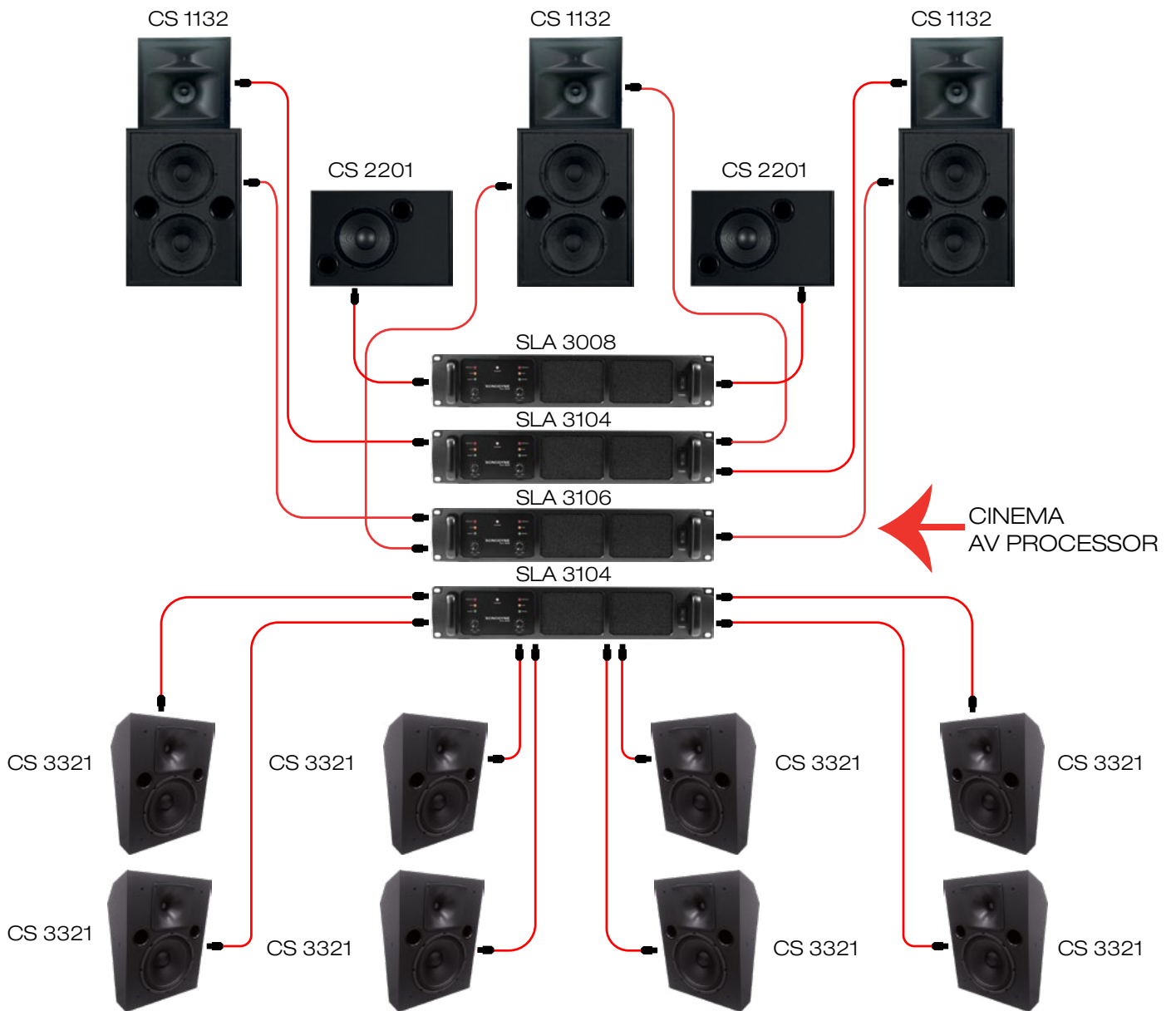
HIGHLIGHTS

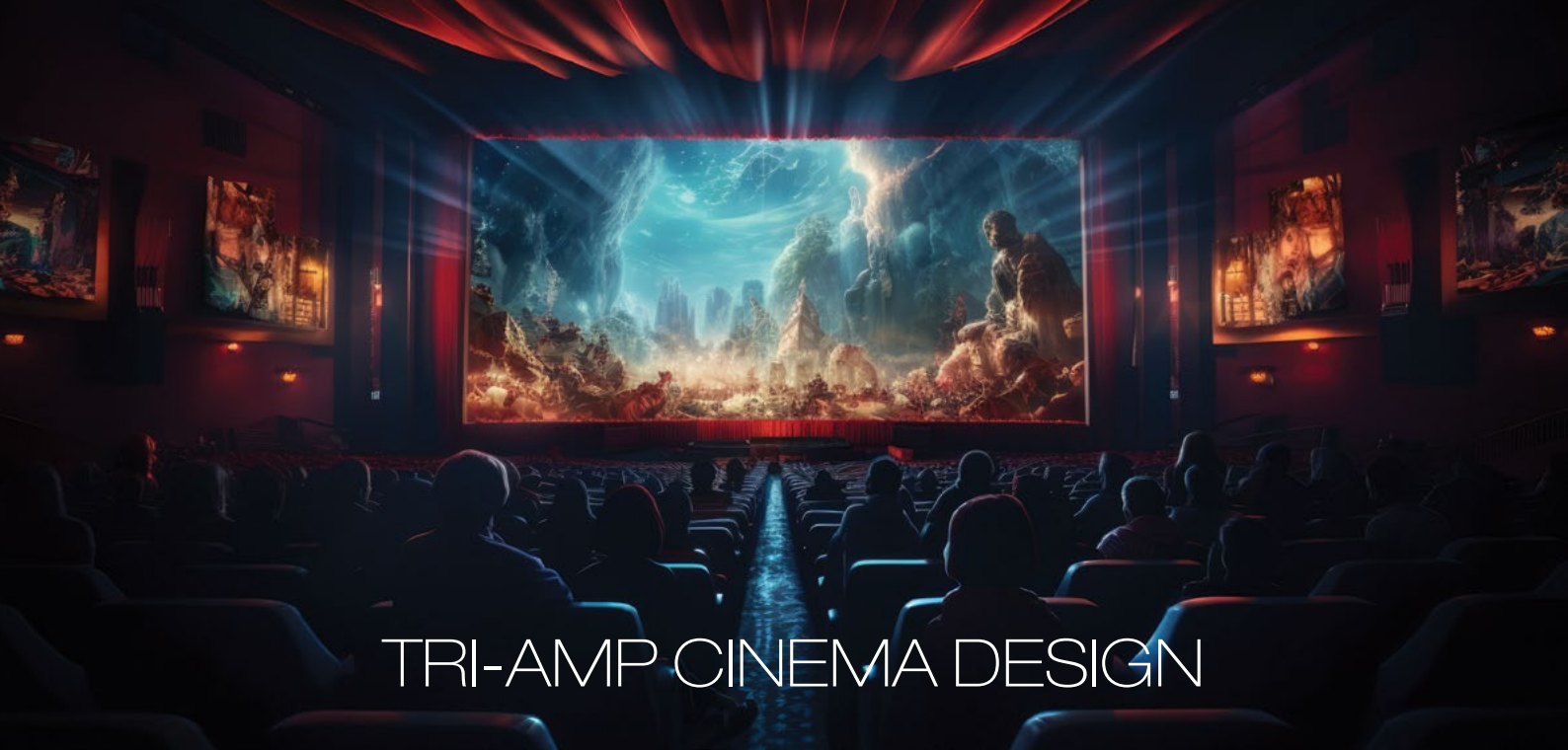
- Soft start
- High SNR
- Low THD, IMD
- Heavy-duty power supply for high dynamic power
- Short-circuit, thermal, output DC, RF protection
- Variable-speed twin fan back-to-front cooling
- Twist lock and binding post output connectors
- LED indicators for status, clip and protection

	SLA 3003	SLA 3004	SLA 3006	SLA 3008	SLA 3010	SLA 3013	SLA 2015	SLA 3104	SLA 3106
CHANNELS	2	2	2	2	2	2	2	4	4
OUTPUT POWER/CH	300W	400W	600W	800W	1000W	1350W	1500W	400W	600W
4Ω	450W	600W	900W	1200W	1400W	2150W	2250W	600W	900W
8Ω BRIDGE	1000W	1200W	1800W	2400W	2800W	2700W	4500W	1200W	1800W
THD @ RATED POWER	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 0.1%	< 1%	< 1%
DAMPING FACTOR	> 300	> 300	> 300	> 300	> 300	> 300	> 300	> 300	> 300
S/N RATIO (20Hz~20kHz)	100dB	101dB	103dB	104dB	105dB	105dB	107dB	105dB	105dB
OUTPUT CIRCUITRY	AB	AB	H	H	H	TD	H	H	H
FREQ. RESP. (±0.5dB)	20Hz ~ 20kHz	20Hz ~ 20kHz	20Hz ~ 20kHz	20Hz ~ 20kHz	20Hz ~ 20kHz	20Hz ~ 20kHz	20Hz ~ 20kHz	20Hz ~ 20kHz	20Hz ~ 20kHz
INPUT CONNECTORS/CH	XLR with link	XLR with link	XLR with link	XLR with link	XLR with link	XLR with link	XLR with link	XLR with link	XLR with link
OUTPUT CONNECTORS/CH	Twist-lock connector and binding post	Twist-lock connector and binding post	Twist-lock connector and binding post	Twist-lock connector and binding post	Twist-lock connector and binding post	Twist-lock connector and binding post	Twist-lock speaker socket, binding post	Twist-lock connector and binding post	Twist-lock connector and binding post
AMPLIFIER AND LOAD PROTECTION	Short circuit, output DC, thermal, RF protection	Short circuit, output DC, thermal, RF protection	Short circuit, output DC, thermal, RF protection	Short circuit, output DC, thermal, RF protection	Short circuit, output DC, thermal, RF protection	Short circuit, output DC, thermal, RF protection	Short circuit, output DC, thermal, RF protection	Short circuit, output DC, thermal, RF protection	Short circuit, output DC, thermal, RF protection
FRONT PANEL CONTROLS	Clip, Protect and Signal LED indicators, 42 detent rotary vol control	Clip, Protect and Signal LED indicators, 42 detent rotary vol control	Clip, Protect and Signal LED indicators, 42 detent rotary vol control	Clip, Protect and Signal LED indicators, 42 detent rotary vol control	Clip, Protect and Signal LED indicators, 42 detent rotary vol control	Clip, Protect and Signal LED indicators, 42 detent rotary vol control	Clip/Protect indicator, 6 steps vol level indicator, 21 detent vol level control	Clip, Protect and Signal LED indicators, 42 detent rotary vol control	Clip, Protect and Signal LED indicators, 42 detent rotary vol control
REAR PANEL CONTROLS	3 position Slide switch for Mode - Dual, Mono, Bridge. 3 position Slide switch for Sensitivity 0.775V, 1V, 1.4V	3 position Slide switch for Mode - Dual, Mono, Bridge. 3 position Slide switch for Sensitivity 0.775V, 1V, 1.4V	3 position Slide switch for Mode - Dual, Mono, Bridge. 3 position Slide switch for Sensitivity 0.775V, 1V, 1.4V	3 position Slide switch for Mode - Dual, Mono, Bridge. 3 position Slide switch for Sensitivity 0.775V, 1V, 1.4V	3 position Slide switch for Mode - Dual, Mono, Bridge. 3 position Slide switch for Sensitivity 0.775V, 1V, 1.4V	3 position Slide switch for Mode - Dual, Mono, Bridge. 3 position Slide switch for Sensitivity 0.775V, 1V, 1.4V	DIP switch for stereo, parallel, bridge. DIP switch for 2 sensitivity settings	3 position Slide switch for Mode - Dual, Mono, Bridge. 3 position Slide switch for Sensitivity 0.775V, 1V, 1.4V	3 position Slide switch for Mode - Dual, Mono, Bridge. 3 position Slide switch for Sensitivity 0.775V, 1V, 1.4V
DIMENSIONS HxWxD	88 x 483 x 462mm	88 x 483 x 462mm	88 x 483 x 462mm	88 x 483 x 462mm	88 x 483 x 462mm	88 x 483 x 396mm	88 x 483 x 457mm	88 x 483 x 446mm	88 x 483 x 446mm
WEIGHT	17kg	17.5kg	18.5kg	19kg	20.5kg	21kg	28kg	18.6kg	19.2kg

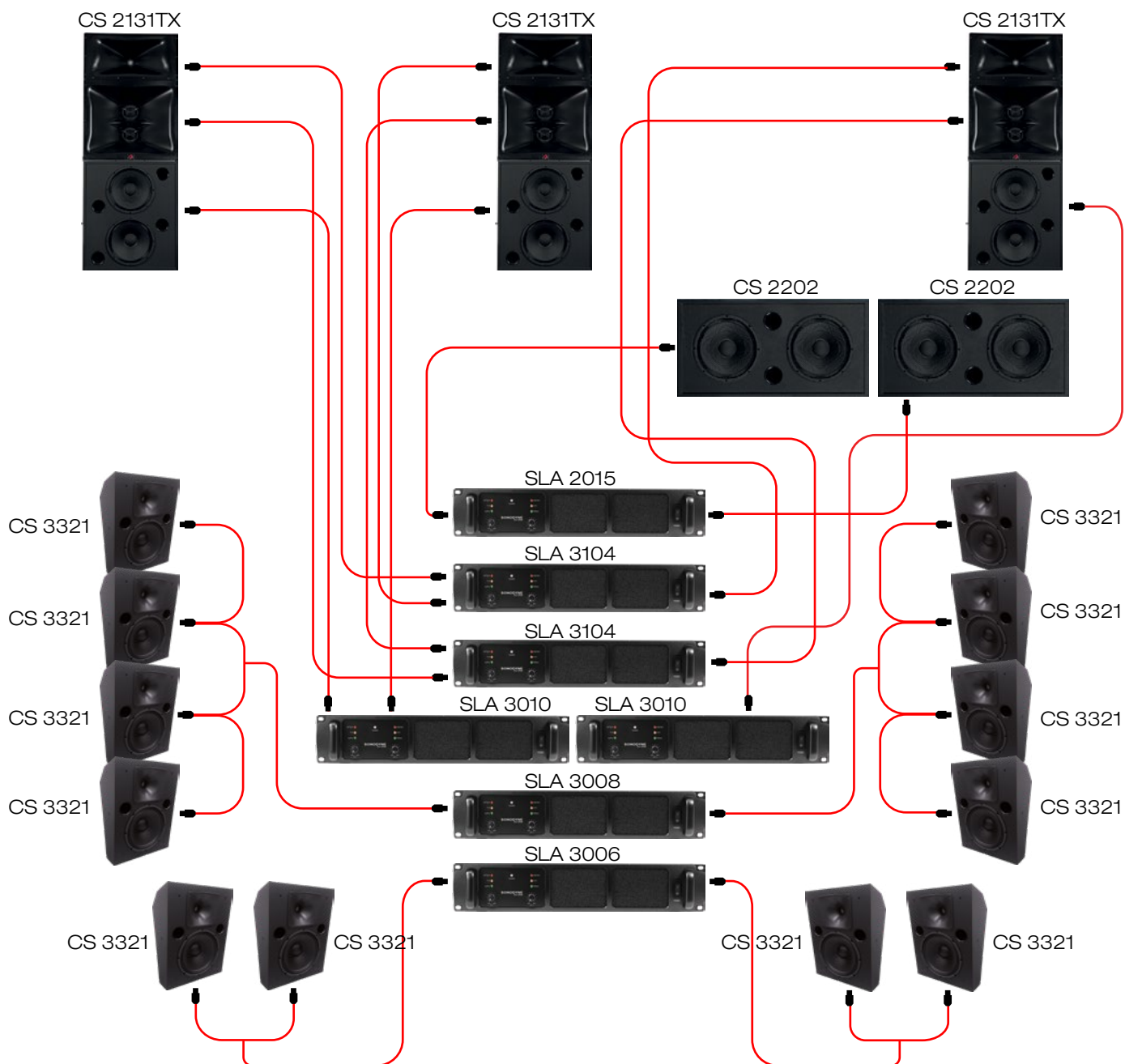


BI-AMP CINEMA DESIGN





TRI-AMP CINEMA DESIGN



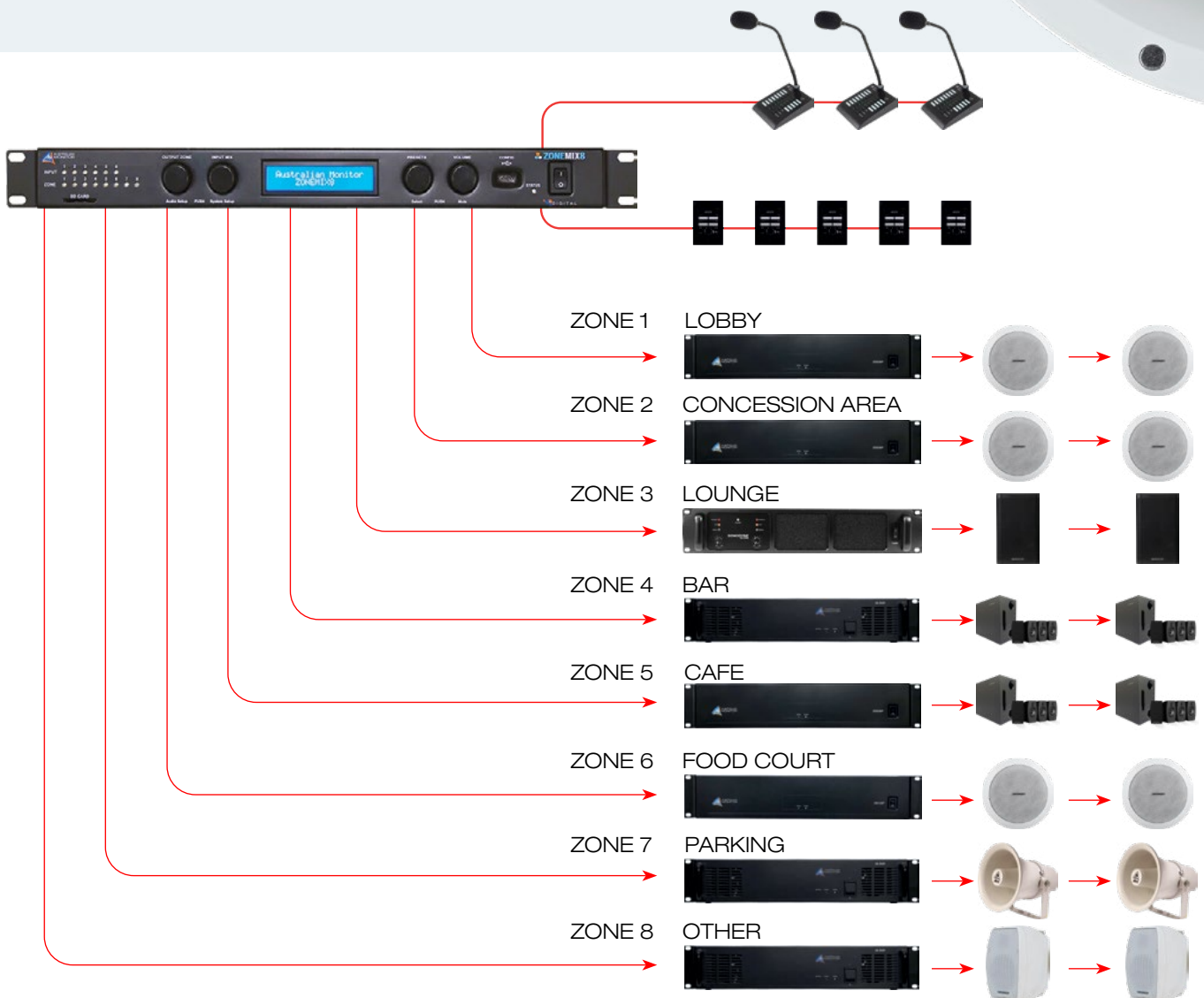


BACKGROUND MUSIC & PAGING

There's so much more happening at the cinema than watching a movie. Our vast range offer background music and paging solutions for

Lobby area • Concession area • Common utilities • Lounges • Paging inside the cinema hall

For a complete experience in your cinema, chose Sonodyne





SCAN FOR
DETAILS

SONODYNE®



GeM
Government
e Marketplace

OEM EMPANELLED | MAKE IN INDIA CLASS 1

response@sonodyne.com
www.sonodyne.com

MADE IN INDIA
since 1970