

PROPHON

SOUND SYSTEMS

C.L.A.M 21041 Cinema Line Array Module



MADE IN SWEDEN
SINCE 1985



PRESENTATION CLAM 21041

The CLAM 21041 was designed due to a demand in a high power line array cinema system, for large cinema venues. Compared to standard cinema systems with hornloaded point-source technology, the CLAM Cinema Line Array, only loses -3dB for each doubling of distance, instead of a -6dB loss of SPL as in regular point-source systems, due to line source array coupling technology, and the array of waveguide-mounted 1" drivers seamlessly covers both vertical and horizontal dispersion.

Developed for large format screens, and for cinema venues with balcony, or other architecturally challenging rooms.

The CLAM21041 can either be stacked one, two, three or four modules, or flown.

The XD215 LF module is needed for LF reproduction down to 35Hz, featuring 2 x 15" high power Low frequency woofers with 4" voice coils and 2000W RMS power handling (4000W cont.)

Using the splay aiming plates for adjusting the tilt of each module vertically enables the array to cover the seats perfectly, where each CLAM-module covers a narrow section of the seats.

With Ease focus 3 prediction software for simulating and projecting, the result is astounding, where all calculations, simulations and predictions can be made before the installation is done, enabling for architects, constructors and planners to have a clear image of where ever loudspeaker is placed, and have a clear result of how it will sound when the installation is ready.

Using the latest in DSP amplifiers with custom FIR technology enables for a phase-coherent and linear frequency response very few cinema-system can match.

SYSTEM SETUP

The CLAM21041 can be used in small to medium and large cinema theatres, being a scalable system. It is easy to calculate and simulate how many modules is needed to cover all seats, and what vertical angles each module should have in regards to each other to cover the whole audience.



1 x CLAM21041 module
groundstacked on XD215



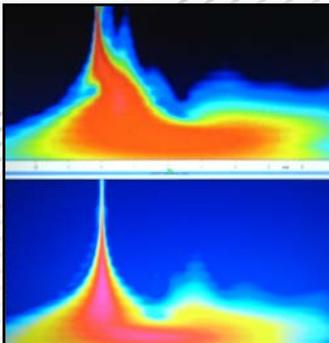
2 x CLAM21041 modules
groundstacked on XD215



3 x CLAM21041 modules
groundstacked on XD215

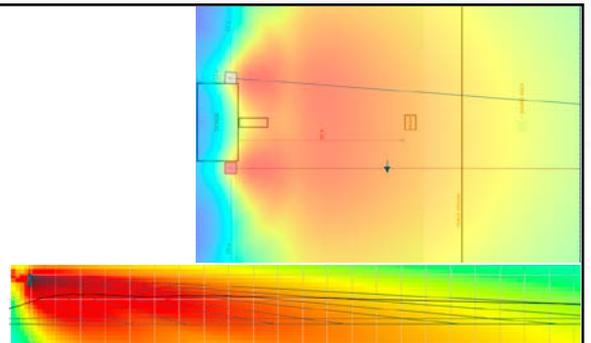


4 x CLAM21041 flown
with 2 x XD215 on floor



Left) Custom FIR filters (Finite Impulse Responce) adjust the phase over time and frequency, so that each frequency exits the speaker with no latency in between them, Top image is before FIR filter adjustments.

Right) Simulation in Ease focus, where the drawing of the cinema is used for advanced acoustical predictions and simulations



Technical data CLAM21041, MF/HF- Cinema Line Array Module

Model	CLAM21041
midrange frequency driver (MF)	2 x 10" front-loaded tuned bassreflex, linear arrayed
High frequency driver (HF)	4 x 1"- throat exit driver, mounted on a wave guides.
Construction	MF/HF - Cinema Line Array Module 1) Bi-amplified using two DSP amplifier channels 2) Passive 4 ohm, with built in passive crossover network, using one dsp amplifier channel
Sensitivity	100dB@1W/1m.
Nominal impedance	MF: 4 ohm total HF: 4 ohm total
Power handling R.M.S.	MF: 400W HF: 80W
Power Handling cont..	MF: 800W HF: 160W
Max SPL, open space (calc.)	129 dB
MAx SPL Peak (calc.)	135 dB
frequency response +/- 6dB	80Hz - 20kHz
Vertical dispersion -6dB	20°
Horizontal dispersion -6dB	110°
Measurements H x W x D mm.	570 x 520 x 280
Weight	20 kg.
Recommended pre-programmed DSP amplifiers	PROPHON P4800DSP, PROPHON P41200DSP

Technical data XD215, 2x15" LF module

Model	XD215
LF driver	2 x 15" High Power woofers with 4" voice coil
Construction	Frontloaded tuned bassreflex
Sensitivity	100dB 1W/1m.
Nominal impedance	4 ohm (2 x 8 ohm woofers)
Power Handling RMS	2000W
Power Handling cont.	4000W
Max SPL 2Pi (calc)	139dB 1W/1m.
Measurements H x W x D	1040 x 520 x 500
Weight	50 kg.
Recommended pre-programmed Systems DSP amplifiers	PROPHON P4800DSP, PROPHON P41200DSP



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