

FRONT LCR

Matterhorn 12

The flagship front channel of the range: a sealed two-way coaxial on a twelve-inch woofer, for matched left, centre and right duty in a dedicated cinema.

The Matterhorn 12 is engineered to reach the CEDIA RP-22 screen channel target — 85dB reference average with headroom for 105dB peaks — in medium and large rooms, with the front array sitting behind an acoustically transparent screen.

Coverage is 80° conical and symmetrical, and the coaxial arrangement is what makes that figure mean something: the high frequencies leave from the acoustic centre of the woofer, so the loudspeaker behaves as one source rather than two at different heights.

The cabinet is sealed, as every model in the range is. Across the crossover region the 12 rolls off gently and predictably into the 18S rather than handing over from a port, so the join is set by the crossover rather than by two enclosures behaving differently either side of it.



MATTERHORN 12

SPECIFICATION

Type	2-way coaxial, sealed, passive crossover
Drivers	12-inch woofer with a coaxially mounted 1-inch high-frequency unit
Frequency response	79Hz – 20kHz, ± 3 dB (in baffle wall, subwoofers below 80Hz)
Sensitivity	97dB (2.83V at 1m, half-space)
Max continuous SPL	125dB at 1m
Power handling	300W AES, 600W programme
Impedance	8 Ω nominal, 6.6 Ω minimum
Coverage	80° conical, symmetrical
Crossover	1.8kHz internal, LR4 at 24dB/octave
System crossover	80Hz to the Matterhorn 18S
Cabinet	18mm MDF, 36mm front baffle, heavily braced
Dimensions	711 × 525 × 228mm (28.0 × 20.7 × 9.0in), W × H × D
Weight	18kg (40lb)

Measured in a baffle wall with subwoofers handling everything below 80Hz, which is how the loudspeaker is installed. Figures quoted any other way describe a condition the 12 is not used in.

PERFORMANCE BY ROOM SIZE

ROOM	SEAT DISTANCE	SPL AT SEAT	HEADROOM
12 × 18ft (3.7 × 5.5m)	3.6m	117dB	+12dB
15 × 24ft (4.6 × 7.3m)	4.8m	114dB	+9dB
18 × 30ft (5.5 × 9.1m)	5.9m	112dB	+7dB

Headroom is what remains above the 105dB target once the seat distance is paid for. Figures assume the loudspeaker in a baffle wall and include an **estimated +6dB of boundary gain** from that loading; free-standing, subtract it. Screen loss and the room's own acoustics are accounted for in the system design rather than here.

APPLICATION

Role	Front LCR in medium to large rooms
Installation	Baffle wall, behind an acoustically transparent screen
RP-22 target	85dB reference average, 105dB peak headroom
Typical count	Three per room

IN THE SYSTEM

FRONT ARRAY

Three Matterhorn 12 behind an acoustically transparent screen, left, centre and right. Voicing is matched across the range, so surrounds on the Matterhorn 8 keep timbre consistent off-screen.

LOW FREQUENCY

Crossed over at 80Hz to the Matterhorn 18S, a minimum of two per room. The 12 is specified with subwoofers carrying everything below that point.

AMPLIFICATION

8Ω nominal with a 6.6Ω minimum, 300W AES and 600W programme. The crossover is passive and internal, so one amplifier channel drives one loudspeaker.

CALIBRATION

RP-22 verifies performance across the whole seating area rather than at one measurement position. Consistency from the primary seat to the last row is the target, not on-axis response alone.

ABOUT AUDIO DYNAMICS

Audio Dynamics designs and builds the Matterhorn range in Bangalore, India. Every model starts from the performance a finished room has to demonstrate under CEDIA RP-22 and works backwards to the drive units and cabinet needed to reach it with margin in hand. Enquiries, and where the range can be heard, at audiodynamicsglobal.com/listen.