Concept 6

Active Multi-Channel Loudspeaker System

MULTICHANNEL

ACOUSTIC ENGINEERS

Concept 6

Introducing a new, flexible solution for multi-channel music and movie home cinema offering outstanding stereo music reproduction

Overview

As multi-channel systems increase in popularity, it is easy to forget that the basic stereo pair of speakers at the front of the listening area remains an essential element. Existing libraries of recorded music, the commitment of recording companies to stereo in its current form, and the new high resolution digital two-channel formats indicate that stereo will continue to be the main source of recorded music for the foreseeable future. For these reasons ATC still regards the main stereo speaker pair as the foundation on which a high performance multi-channel system can be built. The award-winning SCM50 ASL three-way active monitor which provides left and right front channels in the Concept 6 system is an ideal way to establish that foundation.

MULTICHANNEL

In pursuit of the truth

The system

Concept 6 has been configured using loudspeakers from ATC's Multi-channel Mix & Match collection, a concept born of the company's world-wide experience in the design, manufacture and installation of professional active multi-channel studio loudspeaker systems. This innovative facility allows users, installers and architects to select from a wide range of active and passive loudspeakers to match their system requirements in terms of budget, number of channels, SPL, room size and decorative finish – precisely.

Since all ATC multi-channel components are capable of handling high digital bit rate recordings replayed at high SPLs with low distortion, they have become the preferred choice of many professional studios – the Sony DVD mastering suite in New York, the Pioneer Mastering Suite in Barcelona, TODD AO and Naxos to name but four.

The classically-styled Concept 6 fully-active 5.1 (or 7.1) system houses cutting-edge technology based around the class-leading SCM50 ASL and SCM20 ASLT monitors. Each drive unit in the front left, centre and right channels is powered by its own dedicated amplifier. The specification of each amplifier, totalling 350watts per channel, is carefully matched to its partnering drive unit to ensure balanced

maximum sound pressure level capability together with substantial transient headroom.

Lower frequencies from both the front left and right channels are reproduced by a 234mm bass driver incorporating Super Linear magnet technology to greatly reduce third order harmonic distortion. The horizontal centre channel has two similar bass drivers. The crucial mid frequencies are delivered through the ATC Super Mid Soft Dome which offers improved wave guide and superior frequency linearity. The upper frequencies responsible for clarity and detail are reproduced by 25mm tweeters exhibiting exceptionally smooth and linear frequency response to well above 20kHz.

Sub frequencies are reproduced through the new 380mm ATC Super Linear bass driver which is housed in a dedicated enclosure originally designed for the DVD Mastering Suite at Sony Music in New York. The on-board amplifier is capable of delivering up to 1000watts. This becomes critical as film mixes demand a play-back level from the sub-bass of 10dB louder than the sum of the other channels. The sub-bass and dedicated horizontal centre channel enclosures are finished in veneer to match the rest of the system.

The rear right and left channels (5.1) employ the SCM20 ASLT monitor with on-board 350watt Class A amplifiers. Bass and mid frequencies are delivered via a unique hybrid driver incorporating a 150mm bass cone that operates up to 600Hz, which then mechanically crosses over to its central 75mm Soft Dome which handles the crucial wave band between 600Hz-2.8kHz. High frequencies are handled by the same high-performance 25mm tweeters employed in the front left, right and centre channels.

Cabinet construction throughtout the system is of massively-braced Medite finished in a range of beautiful traditional real wood veneers. Almost any wood, high-gloss 'piano' or 'professional black' finish can be supplied to special order. Customers may also specify free-standing or soffit-mounting configurations. Dedicated stands are supplied for enclosures where required.

Ultimately, it is the award-winning SCM Super Linear Magnet and Soft Dome technology developed by Billy Woodman which provides the key to the outstanding capability of Concept 6. The result is unique in that, whichever ATC multi-channel components you choose, you will experience wide dispersion and a tonal (timbre) signature which is seamlessly and consistently reproduced throughout.

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Specifications

	SCM50 ASL Front Left/Right	SCM20 ASLT Rear Left/Right
Drivers:		
HF	25mm (1")	25mm (1")
Mid	75mm (3")	–
LF	234mm (9")	165mm (6")
Amplitude Linearity ±2dB	70Hz – 12kHz	80Hz – 12kHz
Cut-off Frequencies (-6dB free standing)	38Hz & 20kHz	60Hz & >20kHz
Dispersion:		
Horizontal	±80° Coherent	±80° Coherent
Vertical	±10° Coherent	±80° Coherent
Max continuous SPL @ 1 metre	112dB SPL	108dB SPL
Crossover Frequencies	380Hz & 3k5Hz	2k8Hz
Input Connector	Male XLR pin 2 hot	Male XLR pin 2 hot
Input Sensitivity	1V Balanced	1V Balanced
Input Impedance	>10k Ohms	>10k Ohms
Amplifier Output:		
HF	50Watts RMS	50Watts RMS
Mid	100Watts RMS	–
LF	200Watts RMS	200Watts RMS
Overload Protection	Active FET Momentary Gain Reduction plus LDR thermal protection for tweeter	
Cabinet Dimensions (HxWxD)	717 x 304 x 480mm	1000 x 239 x 388mm
Overall Weight	49kg	40kg
Stands/Brackets	Floor stands included	Integral adjustable spikes
Cabinet Finishes	Standard real wood veneers are available in Black Ash, Mahogany, Cherry and Natural Oak. Other veneers and finishes can also be supplied to special order	

	SCM50 ASL Centre Channel	SCM0.1/15 ASL Sub Bass
Drivers:		
HF	25mm (1"	–
Mid	75mm (3")	–
LF	2 x 234mm (9")	375mm (15")
Amplitude Linearity ±2dB	50Hz – 12kHz	25Hz – >1kHz
Cut-off Frequencies (-6dB free standing)	32Hz & 20kHz	18Hz & >2kHz
Dispersion:		
Horizontal	±80° Coherent	–
Vertical	±10° Coherent	–
Max continuous SPL @ 1 metre	115dB SPL	115dB SPL
Crossover Frequencies	380Hz & 3k5Hz	–
Input Connector	Male XLR pin 2 hot	Male XLR pin 2 hot
Input Sensitivity	1V Balanced	1V Balanced
Input Impedance	>10k Ohms	>10k Ohms
Amplifier Output:		
HF	50Watts RMS	–
Mid	100Watts RMS	–
LF	200Watts RMS	650Watts RMS
Overload Protection	Active FET Momentary Gain Reduction (plus LDR thermal protection on SCM50 ASL tweeter)	
Gain Control Range	–	12dB
Adjustable Filter	–	50/60/70/80Hz low pass 2nd order
Theatre Equaliser	_	40 - 80Hz boost
Cabinet Dimensions (HxWxD)	388 x 1200 x 511mm	550 x 550 x 635mm
Overall Weight	83.6kg	63.6kg
Stands/Brackets	Floor stands included	–
Cabinet Finishes	Standard real wood veneers are available in Black Ash, Mahogany, Cherry and Natural Oak. Other veneers and finishes can also be supplied to special order	

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