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PRESS INFORMATION

Elettromedia, February 2010

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Press information

Elettromedia - February 2010

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THE AUTHENTIC VOICE

Originating directly from the experience of the outstanding Thesis line, the Voce components take the in-car listening experience to a new level of excellence. Innovative and advanced design, reference performance; the synthesis of a solid know-how employed in car audio reproduction.

The Voce project was born to make Thesis sound quality accessible to a wider, still demanding audience. The development of these components took advantage of the main innovations applied during the design of the Thesis line: drastic reduction of non-linear distortions, linearization of electric and acoustic load, control of membrane and cone back-wave reflections.
In order to achieve these goals, new materials had to be developed, new mouldings for baskets and cones had to be designed, new assembly and quality control procedures had to be prepared; a delicate work of analysis and refinement, that brought to achieving results which exceeded our own expectations, establishing a new reference for its own category.
The development of these new loudspeakers started from the drawing of the motor assemblies as well as their delicate interaction with the voice coil assembly, to obtain a linear magnetic flux, stability of the magnet working point and of the modulation of the coil inductance.
The result derives from an over-optimization of geometries and materials; the voice coil of all the components were made in extremely light Copper Clad Aluminium Wire, on Kapton former.
The woofer surrounds re-use the tested profile developed for the Thesis components: triple wave in butyl rubber for the surround and nomex fabric for the spider.
The new die-cast baskets of **AV 5.0**, **AV 6.5** and **AV 12** models take inspiration from the Thesis characteristics, and thanks to a delicate optimizing action they meet the two main requirements expected from these components: linearity in acoustic load on the back of the membrane and absence of mechanical resonances in the band-pass.

The same attention to mechanical design was devoted to the structure of the **AV 1.1** tweeter; its front acoustic load is extremely linear, maximizing off-axis response; the rear damping chamber features an annular geometry, adjusting its characteristics with the needs of the membrane, also using an efficient and linear damping material, especially developed for this tweeter.

The woofer super-light membranes are made out of treated cotton fibre and pressed-paper, with a finish ensuring control of the break-up resonances in

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mid-high range, while the classic Tetolon® has been employed on the tweeter, the same mixed silk and cotton texture used for the magnificent Thesis **TH1.5** tweeter.

Maximum attention has been put on thermal behaviour; for the new Voce components, a proprietary cooling system has been designed into the basket (located underneath the spider) and into the magnetic assembly. The air flow through the radial vents combined with the air flow running through the central decompression vent allows optimum working temperature of the voice coil assembly.

The Audison Voce line offers a complete and versatile range of components. The **AV 1.1** tweeter features a very light Tetolon® membrane, 28 mm Copper Clad Aluminium Wire voice coil, Neodymium magnet and annular rear damping chamber. The **AV 5.0**, **AV 6.5** woofers and the **AV 12** subwoofer feature an aluminium basket with a great aerodynamic structure, a cotton-fibre paper pressed cone with Light Damping treatment, a triple wave surround in butyl rubber and extremely light Copper Clad Aluminium Wire co ils. The core of the **AV 3.0** midrange is a powerful Neodymium magnetic group: efficiency and linearity make it an irreplaceable component to achieve a fine yet dynamic mid range, while its compact size allows versatile and high-performance installations.
The **AV X5** and **AV X6.5** coax speakers are the evolution of the woofers from the same line, thanks to the introduction of an excellent 1" Tetolon® dome tweeter, along with a refined dedicated crossover. The Orientable High Frequency Tuning technology also provides the ability to optimize dispersion in high range to achieve the best performance in the listening point.

The **AV CX 2W MB** crossover is especially thought for the **AV K5** and **AV K6** two-way complete systems, shaping their acoustic response to achieve a consistent, harmonious sound in any vehicle, also offering the acoustic controls necessary to achieve the best balance according to one's own taste.

The **AV CX 2W MH** crossover is dedicated to the mid-high speakers of a three-way multi-amplified system, providing the ability to use multiple woofer sections, for maximum flexibility and absolute performance.

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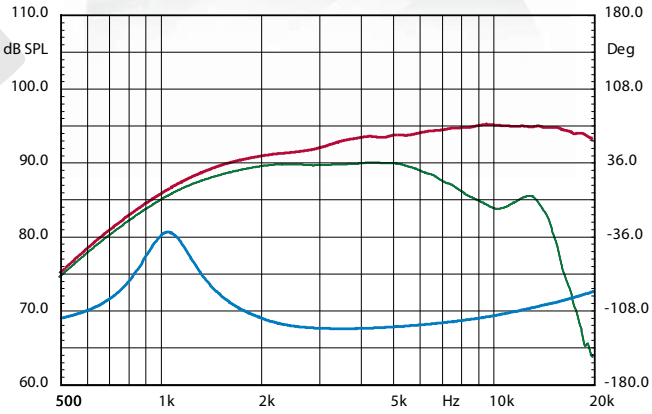
AV 1.1 TWEETER

1. Tetolon® dome, a combination of silk and cotton with proprietary damping treatment, provides low mass and resonance-free response up to ultrasonic frequencies.
2. CCAW (Copper Clad Aluminium Wire) voice coil wound on double layer, extremely lightweight and compact, resulting very high efficiency and a crisp, dynamic sound.
3. The annular geometry of the Rear Damping Chamber, together with the proprietary damping material, extends the frequency response to lower limits and reduces harmonic distortion.
4. High flux density Neodymium® magnet, for very high efficiency and dynamic sound.



TECHNICAL SPECIFICATIONS

Component	Tweeter	
Size	mm	28 (1" 1/8)
Power Handling	W Peak	180
	Hi-pass filtered 2.0 kHz @ 12 dB Oct.	
Impedance	Ohm	4
Frequency Response	Hz	1.2k ÷ 22k
Sensitivity	dB/SPL	92
Outer Ø	mm	48
Mounting Ø	mm	44,8
Total depth	mm	28
Mount. depth	mm	15,2
Magnet size	mm	27,9
Weight of one speaker	kg	0,073
Voice Coil Ø	mm	28

ELECTRO-ACOUSTIC PARAMETERS

D	mm	28
Xmax	mm	-
Re	Ohm	3,3
Fs	Hz	1000
Le	mH @ 1 kHz	0,30
Le	mH @ 10 kHz	0,03
Vas	l	-
Mms	g	0,3
Cms	mm/N	0,07
BL	T-m	2,2
Qts		1,04
Qes		1,38
Qms		4,20
Spl	dB	92

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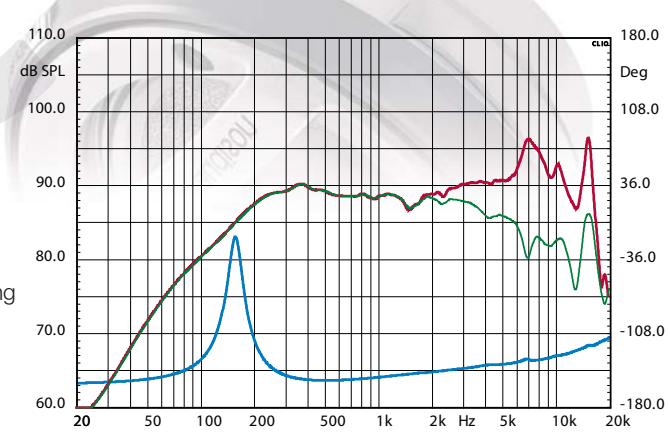
AV 3.0 MIDRANGE

1. The profile of the aerodynamic basket's spokes, along with the “open-air” design, ensures drastic reduction of back-wave reflections.
2. The exclusive Triple Wave surround profile and selected materials provide full linearity as well as reliable performance.
3. Extremely lightweight and compact, the CCAW (Copper Clad Aluminium Wire) voice coils provide very high efficiency and optimal thermal dissipation.
4. Cotton-fibre pressed paper cone with Light Damping treatment.
5. The Radial Venting System ensures high thermal capability, power handling and reliability.
6. High flux density Neodymium magnet, for very high efficiency and dynamic sound.



TECHNICAL SPECIFICATIONS

Component	Midrange	
Size	mm	70 (3")
Power Handling		
	W Peak	100
	W continuous	50
Impedance	Ohm	4
Frequency Response	Hz	200 ÷ 14k
Sensitivity	dB/SPL	93
Outer Ø	mm	88
Mounting Ø	mm	73
Total depth	mm	40,5
Mount. depth	mm	37,5
Magnet size	mm	46
Weight of one speaker	kg	0,290
Voice Coil Ø	mm	20

ELECTRO-ACOUSTIC PARAMETERS

D	mm	66
Xmax	mm	2
Re	Ohm	3,0
Fs	Hz	160
Le	mH @ 1 kHz	0,12
Le	mH @ 10 kHz	0,07
Vas	l	0,38
Mms	g	4,4
Cms	mm/N	0,24
BL	T-m	4,05
Qts		0,64
Qes		0,74
Qms		4,70
Spl	dB	93

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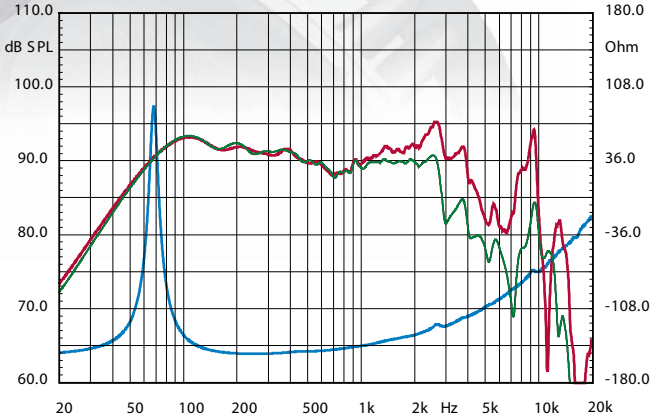
AV 6.5 WOOFER

1 The profile of the aerodynamic basket's spokes, along with the “open-air” design, ensures drastic reduction of back-wave reflections.
2 The exclusive Triple Wave surround profile and selected materials provide full linearity as well as reliable performance.
3 Extremely lightweight and compact, the CCAW (Copper Clad Aluminium Wire) voice coils provide very high efficiency and optimum thermal dissipation.
4 Cotton-fibre pressed paper cone with Light Damping treatment.
5 The Radial Venting System ensures high thermal capability, power handling and reliability.



TECHNICAL SPECIFICATIONS

Component	Woofer	
Size	mm	165 (6" ½)
Power Handling	W Peak W continuous	200 100
Impedance	Ohm	4
Frequency Response	Hz	50 ÷ 7k
Sensitivity	dB/SPL	91
Outer Ø	mm	167
Mounting Ø	mm	146
Total depth	mm	75,5
Mount. depth	mm	69
Magnet size	mm	90
Weight of one speaker	kg	1,210
Voice Coil Ø	mm	30

ELECTRO-ACOUSTIC PARAMETERS

D	mm	130
Xmax	mm	3
Re	Ohm	3,5
Fs	Hz	68
Le	mH @ 1 kHz	0,31
Le	mH @ 10 kHz	0,17
Vas	l	8,18
Mms	g	16,1
Cms	mm/N	0,34
BL	T-m	5,46
Qts		0,74
Qes		0,82
Qms		7,84
Spl	dB	91

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AV 12
SUBWOOFER

1 The profile of the aerodynamic basket's spokes, along with the “open-air” design, ensures drastic reduction of back-wave reflections.
2 The exclusive Triple Wave surround profile and selected materials provide full linearity as well as reliable performance.
3 Extremely lightweight and compact, the CCAW (Copper Clad Aluminium Wire) voice coils provide very high efficiency and optimum thermal dissipation.
4 Cotton-fibre pressed paper cone with Light Damping treatment.
5 The Radial Venting System ensures high thermal capability, power handling and reliability.

TECHNICAL SPECIFICATIONS

Component	Single coil Subwoofer	
Size	mm	300 (12")
Power Handling	W Peak W continuous	1000 500
Impedance	Ohm	4
Freq. Response	Hz	25 ÷ 1k
Sensitivity	dB/SPL	91
Outer Ø	mm	318
Mounting Ø	mm	285
Total depth	mm	155
Mount. depth	mm	143
Magnet size	mm	180
Total driver displacment	l	2,8
Weight of one component	kg	8,350
Voice Coil Ø	mm	60
Magnet	Single magnet, High density flux ferrite	
Cone	Cotton-fiber pressed paper with light damping	
Xmech*	mm	22

ELECTRO-ACOUSTIC PARAMETERS

D	mm	260
Xmax	mm	15
Re	Ohm	3,7
Fs	Hz	32
Le	mH @ 1 kHz	1,08
Le	mH @ 10 kHz	-
Vas	l	82,2
Mms	g	119,6
Cms	mm/N	0,21
BL	T-m	11,84
Qts		0,52
Qes		0,63
Qms		3,06
Spl	dB	91

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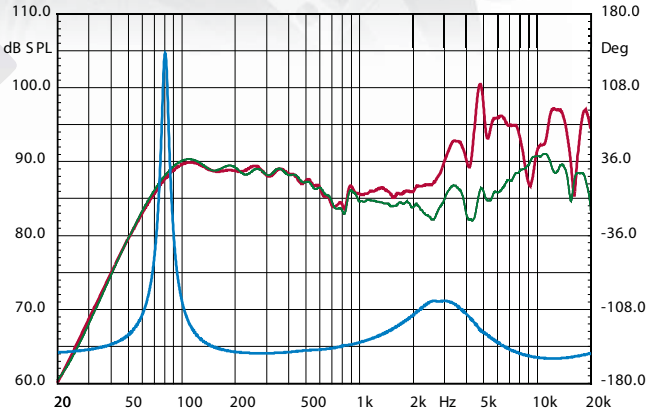
AV X5 COAXIAL

1 The profile of the aerodynamic basket's spokes, along with the “open-air” design, ensures drastic reduction of back-wave reflections.
2 The exclusive Triple Wave surround profile and selected materials provide full linearity as well as reliable performance.
3 Extremely lightweight and compact, the CCAW (Copper Clad Aluminium Wire) voice coils provide very high efficiency and optimal thermal dissipation.
4 The Radial Venting System ensures high thermal capability, power handling and reliability.
5 Cotton-fibre pressed paper cone with Light Damping treatment.
6 Orientable High Frequency Tuning: controlled dispersion for the best performance in the listening point.
7 1” Tetolon® dome Neodymium tweeter.
8 On-wire dedicated crossover network.



TECHNICAL SPECIFICATIONS

Component	2 way Coaxial	
Size	mm	Woofer 130 (5" ¼) Tweeter 25 (1")
Power Handling	W Peak W continuous	150 75
Impedance	Ohm	4
Frequency Response	Hz	60 ÷ 22k
Sensitivity	dB/SPL	90
Crossover Included	3.5kHz @ 6/12 dB Oct.	
Outer Ø	mm	131
Mounting Ø	mm	115
Total depth	mm	71
Mount. depth	mm	65
Magnet size	mm	90
Weight of one speaker	kg	1,190
Voice Coil Ø	mm	25

ELECTRO-ACOUSTIC PARAMETERS

D	mm	103
Xmax	mm	3
Re	Ohm	3,5
Fs	Hz	81
Le	mH @ 1 kHz	0,53
Le	mH @ 10 kHz	-
Vas	l	3,14
Mms	g	11,2
Cms	mm/N	0,33
BL	T-m	5,05
Qts		0,73
Qes		0,80
Qms		8,91
Spl	dB	90

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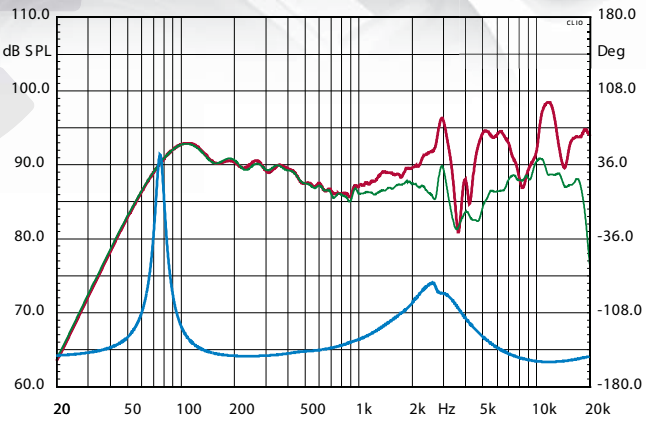
AV X6.5 COAXIAL

1 The profile of the aerodynamic basket's spokes, along with the “open-air” design, ensures drastic reduction of back-wave reflections.
2 The exclusive Triple Wave surround profile and selected materials provide full linearity as well as reliable performance.
3 Extremely lightweight and compact, the CCAW (Copper Clad Aluminium Wire) voice coils provide very high efficiency and optimal thermal dissipation.
4 The Radial Venting System ensures high thermal capability, power handling and reliability.
5 Cotton-fibre pressed paper cone with Light Damping treatment.
6 Orientable High Frequency Tuning: controlled dispersion for the best performance in the listening point.
7 1” Tetolon® dome Neodymium tweeter.
8 On-wire dedicated crossover network.



TECHNICAL SPECIFICATIONS

Component	2 way Coaxial	
Size	mm	Woofer 165 (6" ½) Tweeter 25 (1")
Power Handling	W Peak W continuous	200 100
Impedance	Ohm	4
Frequency Response	Hz	50 ÷ 22k
Sensitivity	dB/SPL	91
Crossover Included	3.5kHz @ 6/12 dB Oct.	
Outer Ø	mm	167
Mounting Ø	mm	146
Total depth	mm	75,5
Mount. depth	mm	69
Magnet size	mm	90
Weight of one speaker	kg	1,270
Voice Coil Ø	mm	30

ELECTRO-ACOUSTIC PARAMETERS

D	mm	130
Xmax	mm	3
Re	Ohm	3,5
Fs	Hz	68
Le	mH @ 1 kHz	0,59
Le	mH @ 10 kHz	-
Vas	l	8,18
Mms	g	16,1
Cms	mm/N	0,34
BL	T-m	5,46
Qts		0,74
Qes		0,82
Qms		7,84
Spl	dB	91

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AV K5 TWO WAY SYSTEM

TWEETER

1. Tetolon® dome, a combination of silk and cotton with proprietary damping treatment, provides low mass and resonance-free response up to ultrasonic frequencies.
2. CCAW (Copper Clad Aluminium Wire) voice coil wound on double layer, extremely lightweight and compact, resulting very high efficiency and a crisp, dynamic sound.
3. The annular geometry of the Rear Damping Chamber, together with the proprietary damping material, extends the frequency response to lower limits and reduces harmonic distortion.
4. High flux density Neodymium magnet, for very high efficiency and dynamic sound.

WOOFER

1. The profile of the aerodynamic basket's spokes, along with the “open-air” design, ensures drastic reduction of back-wave reflections.
2. The exclusive Triple Wave surround profile and selected materials provide full linearity as well as reliable performance.
3. Extremely lightweight and compact, the CCAW (Copper Clad Aluminium Wire) voice coils provide very high efficiency and optimum thermal dissipation.
4. Cotton-fibre pressed paper cone with Light Damping treatment.
5. The Radial Venting System ensures high thermal capability, power handling and reliability.

PASSIVE CROSSOVER

Especially designed for the AV K5 and AV K6 two-way complete systems, shapes their acoustic response to achieve a consistent, harmonious sound in any vehicle, also offering the acoustic controls necessary to achieve the best balance according to one’s own taste.

TECHNICAL SPECIFICATIONS

Component		2 way system
Size mm	AV 5.0 Woofer AV 1.1 Tweeter	130 (5" 1/4) 28 (1" 1/8)
Power Handling		
	W Peak W continuous	200 100
Impedance	Ohm	4
Frequency Response	Hz	60 ÷ 22k
Sensitivity	dB/SPL	90
Crossover included	LO/HI PASS	2.5 kHz @ 12/12 dB Oct.
Componet adjustment	Tweeter	+2; 0; -2 dB
Outer Ø mm	Woofer Tweeter	131 48
Mounting Ø mm	Woofer Tweeter	115 44,8
Total depth mm	Woofer Tweeter	71 28
Mount. depth mm	Woofer Tweeter	65 15,2
Magnet size mm	Woofer Tweeter	90 27,9
Weight of one component kg	Woofer Tweeter	1,125 0,073
Voice Coil Ø mm	Woofer Tweeter	25 28

ELECTRO-ACOUSTIC PARAMETERS

D	mm	103
Xmax	mm	3
Re	Ohm	3,5
Fs	Hz	81
Le	mH @ 1 kHz	0,26
Le	mH @ 10 kHz	0,17
Vas	l	3,14
Mms	g	11,2
Cms	mm/N	0,33
BL	T-m	5,05
Qts		0,73
Qes		0,80
Qms		8,91
Spl	dB	90

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AV K6 TWO WAY SYSTEM

TWEETER

1 Tetolon® dome, a combination of silk and cotton with proprietary damping treatment, provides low mass and resonance-free response up to ultrasonic frequencies.
2 CCAW (Copper Clad Aluminium Wire) voice coil wound on double layer, extremely lightweight and compact, resulting very high efficiency and a crisp, dynamic sound.
3 The annular geometry of the Rear Damping Chamber, together with the proprietary damping material, extends the frequency response to lower limits and reduces harmonic distortion.
4 High flux density Neodymium magnet, for very high efficiency and dynamic sound.

WOOFER

1 The profile of the aerodynamic basket's spokes, along with the “open-air” design, ensures drastic reduction of back-wave reflections.
2 The exclusive Triple Wave surround profile and selected materials provide full linearity as well as reliable performance.
3 Extremely lightweight and compact, the CCAW (Copper Clad Aluminium Wire) voice coils provide very high efficiency and optimum thermal dissipation.
4 Cotton-fibre pressed paper cone with Light Damping treatment.
5 The Radial Venting System ensures high thermal capability, power handling and reliability.

PASSIVE CROSSOVER

Especially designed for the AV K5 and AV K6 two-way complete systems, shapes their acoustic response to achieve a consistent, harmonious sound in any vehicle, also offering the acoustic controls necessary to achieve the best balance according to one’s own taste.

TECHNICAL SPECIFICATIONS

Component		2 way system
Size mm	AV 6.5 Woofer AV 1.1 Tweeter	165 (6" 1/2) 28 (1" 1/8)
Power Handling		
	W Peak W continuous	250 125
Impedance	Ohm	4
Frequency Response	Hz	50 ÷ 22k
Sensitivity	dB/SPL	91
Crossover included	LO/HI PASS	2.5 kHz @ 12/12 dB Oct.
Componet adjustment	Tweeter	+2; 0; -2 dB
Outer Ø mm	Woofer Tweeter	167 48
Mounting Ø mm	Woofer Tweeter	146 44,8
Total depth mm	Woofer Tweeter	75,5 28
Mount. depth mm	Woofer Tweeter	69 15,2
Magnet size mm	Woofer Tweeter	90 27,9
Weight of one component kg	Woofer Tweeter	1,210 0,073
Voice Coil Ø mm	Woofer Tweeter	30 28

ELECTRO-ACOUSTIC PARAMETERS

D	mm	130
Xmax	mm	3
Re	Ohm	3,5
Fs	Hz	68
Le	mH @ 1 kHz	0,31
Le	mH @ 10 kHz	0,17
Vas	l	8,18
Mms	g	16,1
Cms	mm/N	0,34
BL	T-m	5,46
Qts		0,74
Qes		0,82
Qms		7,84
Spl	dB	91

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AVCX 2W MB

TWO WAY CROSSOVER

TECHNICAL SPECIFICATIONS

Component	Two Way Passive Crossover	
Size	mm inch	88,3x123x36 3”1/2 x 4”13/16 x 1”7/16
Power Handling	W peak W continuous	250 125
Crossover Frequency	Hz	2,5k
Slope	dB/Oct.	12/12
Specific Components	AV 1.1 +	AV 5.0 AV 6.5
Adjustment	+2; 0; -2 dB	TW

Especially designed for the AV K5 and AV K6 two-way complete systems, shapes their acoustic response to achieve a consistent, harmonious sound in any vehicle, also offering the acoustic controls necessary to achieve the best balance according to one’s own taste.

TWEETER **AV 1.1**

WOOFER **AV 5.0**

WOOFER **AV 6.5**

AVCX 2W MH

TWO WAY CROSSOVER

TECHNICAL SPECIFICATIONS

Component	Two Way Passive Crossover	
Size	mm inch	88,3x123x36 3”1/2 x 4”13/16 x 1”7/16
Power Handling	W peak W continuous	300 150
Crossover Frequency	Hz	4,0k
Slope	dB/Oct.	12/18
Specific Components	AV 1.1 +	AV 3.0
Adjustment	+2; 0; -2 dB	TW

Dedicated to the mid-high speakers of a three-way multi-amplified system, provides the ability to use multiple woofer sections, for maximum flexibility and absolute performance.

TWEETER **AV 1.1**

MIDRANGE **AV 3.0**

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ABOUT US

Elettromedia, an Italian company, is a leader within the world-wide car Hi-Fi market.
Born in 1987 in Potenza Picena by a group of friends who shared the same passion for in-car high fidelity, throughout the past years Elettromedia has been walking the path of excellence: its products are distributed in more than 50 countries; the company has received many awards and acknowledgements from the most authoritative leaders within the car audio industry; it also can boast reviews of more than 2000 pages published in 30 different languages (visit: www.elettromedia.it/press_area.asp).
The Elettromedia brands are Audison, Hertz, Connection and AZaudiocomp. Through a co-branding strategy, the company offers all of the components required for a complete, top-level car audio system.

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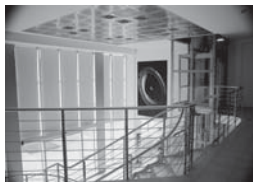

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AWARDS

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CD contents

Audison VOCE Technical Data Sheets (PDF version, 150dpi resolution)

Logos: Audison, VOCE, Ideato progettato ingegnerizzato in Italia (Adobe Illustrator version, 300dpi resolution)

Photos (JPEG version, 300dpi resolution)

AV 1.1

AV 3.0

AV X5

AV X6.5

AV 6.5

AV 12

AV K5

AV K6

Elettromedia_Headquarter

Technologies

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Technology & Art of Sound
Manufactured by elettromedia Italy

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