



KLING &
FREITAG

SOUND SYSTEMS




PASSION

BUILT IN

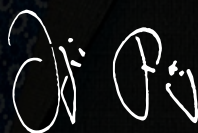
ENGLISH

SOUND SYSTEMS
PRODUCT CATALOGUE

A portrait of Jürgen Freitag, a man with light brown, wavy hair and blue eyes, smiling at the camera. He is wearing a grey blazer over a blue patterned shirt. He is holding a small white card in his hands. The background is a warm, textured wall with a geometric light fixture on the left.

When Martin Kling and I were building our first DIY-loudspeaker-kit as teenagers, we never thought that this would be the beginning of something that big. We've had so much fun building it and trying to improve it in every possible way. It was not about business, numbers or bureaucracy, it was all about fun, music and our passion for great sound. Today I am in the lucky position to work in a field I am really passionate about since I was a teenager and I am happy to share my passion with you with every single one of our loudspeakers.

Stay tuned,
Jürgen Freitag

A stylized white signature of Jürgen Freitag on a black background.

30 YEARS OF „RETHINKING AUDIO“

We've come a long way. From two teenagers building loudspeakers in their parent's basement to a global business. But one thing has always remained: The curiosity and the will to rethink audio!

... back in the days

It started off with Martin Kling and Jürgen Freitag building DIY-loudspeaker kits in the basement of Martin's parents back in the seventies and who knows what would have happened, if these DIY speakers would have been sounding good. Thankfully they did not and our founders had to think about how to make them sound better. From this day on, Martin and Jürgen were not only fixing DIY-Kits, they've been developing their own loudspeakers, soldering crossovers and even wound their own coils because nothing on the market was as precise as they wanted it to be. This was the beginning of Kling & Freitag long before the company was founded back in 1991.

The DNA of Kling & Freitag

What is the DNA of Kling & Freitag? What is our core value? We believe it is the passion for great sound. Here at K&F it is still all about that one thing that has been driving Martin and Jürgen back in the seventies: Transmitting the performance of the artist without any compromise. Therefore, we don't just build loudspeakers like it has been done hundreds of times before. We rethink the whole process and leave the beaten track to discover new things. Of course, that is why some of our systems are a bit different, but that's the DNA of Kling & Freitag – Rethinking audio since day one.

Why K&F?

That's of course the big question and as you are reading our catalogue right now, you might be asking it to yourself. Well, the answer is simple: When it comes to having to meet even the highest demands in terms of sound, there is simply no alternative. No matter if you think about the most prestigious theatres, opera houses or concert halls in the world or mobile applications like festivals, open air concerts or live clubs. Kling & Freitag is always the first choice when it's about the best possible sound.

How about the future?

Being highly innovative without forgetting sustainability is important. Standing still is not an option, but we are sure about the importance of keeping up the support for good products. That is why you are still able to order parts for a 30 year old loudspeaker, but we have also designed our VIDA platform with a way overpowered processor to constantly develop new updates to keep this system at the absolute pinnacle of modern beam steering. It is not about constantly replacing old products with new ones, but about creating sustainable products that provide absolute top performance for a long time. That's what it's all about here at Kling & Freitag.



Meet our team:

youtu.be/d44GBrMz6WA



Elbphilharmonie — Exterior View, Hamburg, Germany

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Max. SPL data measured at 1m distance under free field conditions with pink noise and crest factor 4. Specifications and appearances are subject to change without notice. For more information visit us on our website, www.kling-freitag.de.

We would like to thank Bartosz Hołoszkiewicz/ABLO Group (S. 28, 34, 42, 72, 98), Thies Rätzke (S. 4), Adam Mørk (S. 22), Gert Jan van Rooij (S.54), Genting Global Cruises (S.94), Ralph Larmann (S. 110), HARTIG & THIEL (Produkte) und pixelaxel (Produkte) for the pictures.

K&F

LOUDSPEAKER SYSTEMS



Bregenz Festival/Floating Stage, Lake Constance, Austria



K&F VIDA

VERSATILE INTELLIGENT DIGITAL ARRAY

Versatile

Our VIDA loudspeaker systems offer a rich selection of interfaces that make them a flexible partner. DANTE™, AES/EBU and analog inputs – everything is standard on board and the automatic fallback ensures a very high level of operational reliability. The GPIO-interface makes integration in media control systems a breeze. K&F VIDA is prepared for all eventualities.

Intelligent

In our VIDA series, we precisely optimized every single driver for the respective application. The BEM-optimized K&F VIDA waveguide, in combination with the coaxial arrangement of the low-, mid- and high-frequency drivers, supports precise radiation even in the horizontal plane. The combination of driver arrangement and acoustic optimization ensures the incomparable sound and the highest possible quality for beam steering.

Digital

The Heart of our VIDA Systems is a 48-channel signal processor with a multi-channel amplifier that creates the basis for the outstanding performance of the VIDA family. Due to the extremely high resolution within the system it is possible to control the beam in realtime in steps as small as 0.1°.

The J-Beam algorithm is the latest addition to the VIDA platform. With our standard beam it is possible to tilt the beam and control the ver-

tical opening angle, J-Beam adds the possibility of continuously adjusting the level distribution within the beam and thus achieving the same volume from the first to the last row if needed.

Due to the open FPGA-platform we are constantly working on new technologies which will be added to VIDA in the upcoming years. We'll make sure that VIDA is always state of the art.

Array

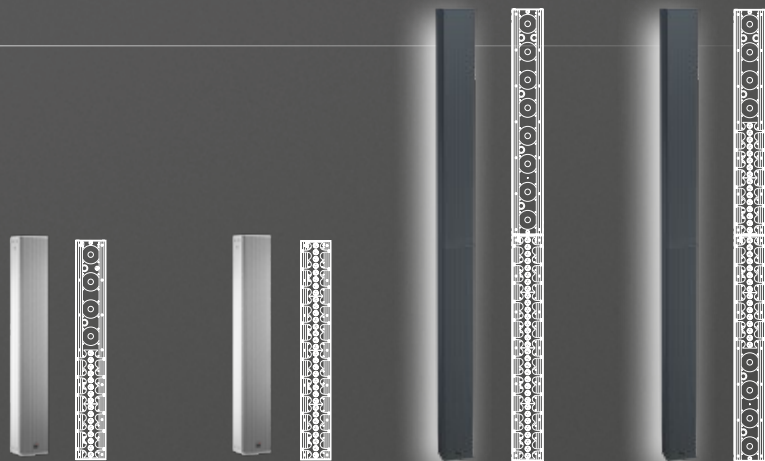
K&F VIDA series covers a wide range of applications. From small speech reinforcement systems up to concert systems for a couple of thousand people in the audience. Depending on the application, K&F VIDA starts with a pair of VIDA M next to a display in a conference room and is scalable up to a full blown 8,80 m array consisting of 8 VIDA L with VIDA C in a large venue which will give you 80 x 6.5" speakers per side (!) for full control of even the lowest frequencies.

... and how about the sound?

Due to the coaxial arrangement of all drivers and the painstaking tuning of all components – hardware or software – K&F VIDA is the only beam steering system on the market built to even exceed the highest expectations when it comes to sound quality. With its ultra-low distortion and the perfectly time-aligned speaker-array, K&F VIDA is capable of reproducing even the smallest details in every signal. K&F VIDA. No compromise.



Learn more on K&F Vida
kling-freitag.de/prorental/vida/





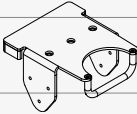
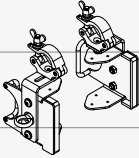
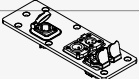




	K&F VIDA M 110 K&F VIDA M 110 S K&F VIDA M 220 K&F VIDA M 220 S			
Design	Active 2-way coaxial column speaker with electronic beam steering			
Controlling	Individual DSP and amplifier channel for each driver			
Frequency response -10 dB	95 Hz – 22 kHz			
Frequency response ±3 dB	125 Hz – 21 kHz			
Coverage angle horizontal	90° nominal			
Coverage angle vertical	Coverage angle adjustable up to 90° Steering angle +/- 45°			
Max. SPL	131 dB		133 dB	
Components	16 x 1" dome tweeter	32 x 1" dome tweeter	32 x 1" dome tweeter	
	8 x 4" low-mid chassis	8 x 4" low-mid chassis	16 x 4" low-mid chassis	
IN/OUT	DANTE™ (primary/secondary)/Remote (RJ45) AES67 support, AES/EBU Input (Phoenix-Connntector, 9-pin), Analog Input (Phoenix-Connntector, 9-pin), GPIO (Phoenix-Connntector, 15-pin), AUX OUT (Phoenix-Connntector, 9-pin)			
AUX OUT	Controllable DSP-output, e.g. for low frequency extension, nominal +6 dBu			
Analog input	Fullscale at +18 dBu			
Wide range power supply	100 V – 240 V AC, 50/60 Hz			
Rated input power²	185 W	240 W	305 W	305 W
Max. power consumption	450 W	585 W	700 W	700 W
Enclosure	Extruded aluminum profile, heavy duty powder coating in black, opaque steel grille with black acoustic foam, hidden connection-panel			
Dimensions (H x W x D)	1083 x 150 x 133 mm		2166 x 150 x 133 mm	
Weight	16,5 kg	17,4 kg	31,6 kg	31,6 kg
Colours	■ RAL 9005 (black) – standard □ RAL 9010 (white) – standard ■ RAL special colour – optional			










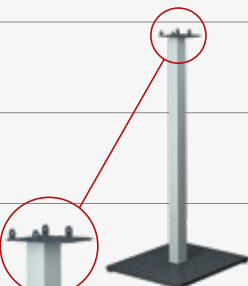
²at 1/8 rated output power



	K&F VIDA L	K&F VIDA C
Design	Active 3 way coaxial high performance column speaker with K&F VIDA beam steering	Passive 1 way bass reflex System, add on for K&F VIDA L
Controlling	48 DSP and amplifier-channels	–
Frequency response -10 dB	65 Hz – 22 kHz 'FR mode' 80 Hz – 22 kHz 'LCut mode'	57 Hz – 350 Hz
Frequency response ±3 dB	77 Hz – 21 kHz 'FR mode' 115 Hz – 21 kHz 'LCut mode'	65 Hz – 240 Hz
Coverage angle horizontal Coverage angle	90° nominal	Cardioid, Hypercardioid, Sphere (Bass boost), (electronically selectable)
Coverage angle vertical	Coverage angle adjustable up to 90° Steering angle +/- 45°	–
Max. SPL	135 dB	–
Power AMP OUT	2 x 400 W RMS/4 Ω	–
AUX OUT	Nominal +6 dBu	–
Analog input	Fullscale at +18 dBu	–
Components	32 x 1" dome tweeter 12 x 3,5" high mid chassis 6 x 6,5" low-mid chassis	4 x 6,5" low-mid chassis
IN/OUT	1 Analog Input (XLR), 1 AES/EBU Input (XLR), 1 VIDA BUS Input (Ethernet), 1 PowerCon True 1, 1 Analog Link (XLR) 1 AES/EBU Link (XLR), 2 Dante™/Remote (Primary/Secondary) AES67 support, 1 AUX OUT (XLR), 1 AMP OUT (speakON®), 1 VIDA BUS Output (Ethernet), GPIOs (Phoenix-Connector); VIDA C: 1 x speakON® 4-pol NLT4MP	
Wide range power supply	100 V – 240 V AC, 50/60 Hz	–
Rated input power ²	520 W	–
Max. power consumption	2.350 W	–
Enclosure	Extruded aluminium profile with internal hidden flight mechanics, back action rail with slot nuts for mounting brackets and VIDA C, flight mechanics to be secured/released via a back action operating lever, heavy duty powder coating in black, connection and output terminal set obliquely downward, ball proof steel grille with black acoustic foam	
Dimensions (H x W x D)	1075 x 210 x 341 mm 1075 x 210 x 480 mm (with VIDA C)	749 x 210 x 150 mm
Weight	48,2 kg	13,6 kg
Colours	<div> <div></div> RAL 9005 (black) – standard <div></div> RAL special colour – optional </div>	

ACCESSORIES	K&F VIDA M		
VIDA M Wall Mount			
VIDA M Flying Frame			
VIDA M Stand Adapter			
VIDA M Carrier Plate			
VIDA M Mounting Adapter			
VIDA M Truss Adapter Set			
VIDA M Connector Panel			

All accessories are available in  black,  white and  RAL special color.

ACCESSORIES	K&F VIDA L		
VIDA L Mounting Bracket/ Handhold			
VIDA L Case			
VIDA L Flying Frame			
VIDA L Flying Frame Extension			
VIDA L Sub Adapter			
VIDA L Flying Bracket			
VIDA L Flying Frame Connector Set			
K&F Rotating Clamp 450			
VIDA L Wall Bracket (fixed installation)			
VIDA L Adapter Plate for design stand			

K&F VIDA APP

INTUITIVE CONFIGURATION SOFTWARE FOR K&F VIDA SYSTEMS



One for all

The K&F VIDA APP is a simple and intuitive touch-based software for PC's, laptops and tablets using Windows 8.1 or later. The app allows real-time configuration and beam adjustment for optimal coverage as well as equalization.

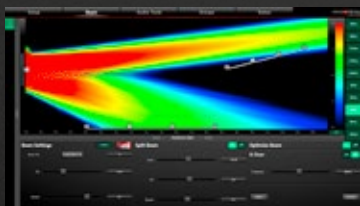


Available free-of-charge in the Windows Store.

Secure and reliable

The software can be password protected to prevent unauthorized persons from altering settings, while allowing system performance monitoring. All settings can be saved as presets.

Rental businesses will appreciate the ability to reset the system to factory default without connection to a computer. A special dongle can be inserted into the network port to reset the system.





Dom St. Blasius, St. Blasien, Germany



K&F PIA M

PASSIVE INTELLIGENT ARRAY

Column Speaker 2.0

With our ground-breaking PIA M we have added a smart new column speaker to our portfolio. Within the development process we decided to completely rethink what is needed in acoustically demanding environments and how our approach could look like without thinking of what has been done before. We came up with some pretty interesting ideas.

One of everything, please ...

What our Engineers came up with is a true jack of all trades. But let's start with the obvious things. Of course, PIA M is designed to integrate seamlessly into demanding architecture. The design is simple, unobtrusive and yet timelessly beautiful. As a K&F family member it is needless to say that it sounds great. It is a 3-way-design with a passive crossover to be driven by only one channel of our K&F system amplifiers (PLM, D- and IPX-Series) and there are many smart mounting solutions for install- and rental-applications.

The LF-way is switchable between "Bass Reflex Mode" and "Cardioid Mode" to perfectly adapt to the application you use PIA M in. The mid-frequency-drivers are always cardioid to avoid spill to microphones. The HF-way consists of 4 x 0.75" compression drivers in a vertically adjustable horn-array that not just tilts up and down, its sophisticated mechanical design allows to splay the waveguides separately to maintain more energy to the back of the room while splaying them more towards the front of the listening area. That way it's possible to get an equal level distribution throughout the whole audience without any compromise in mounting-position or -height.

With PIA M it is possible to really have the best solution for almost every application. The smart design makes it visually appealing for demanding architecture or high profile live events, the intelligent features like selectable cardioid or reflex tuned low frequency modes, cardioid mid-range and adjustable high frequency dispersion makes it a perfect tool for acoustically demanding environments and its great sound and high speech intelligibility will make it the perfect tool for every audio engineer in critical spaces. K&F PIA M – the perfect tool for the job.





	PIA M
Design	Passive 3-way system, 1-way active equalized
Operated with	K&F PLM+ Series, K&F D-Series, IPX 2400
Frequency response -10 dB	76 Hz – 23 kHz ,Bass-reflex FR Mode' 85 Hz – 23 kHz ,Bass-reflex LCut Mode' 112 Hz – 23 kHz ,Cardioid FR Mode' 130 Hz – 22 kHz ,Cardioid FR Mode'
Frequency response ±3 dB	97 Hz – 22 kHz , Bass-reflex FR Mode' 125 Hz – 22 kHz ,Bass-reflex LCut Mode' 172 Hz – 22 kHz ,Cardioid FR Mode' 184 Hz – 22 kHz ,Cardioid LCut Mode'
Nominal coverage angle	100° x 5°–25° (asymmetrical, adjustable)
Max. SPL	132 dB
Nominal impedance	8 Ω
Loudspeakers per channel	3 (recommended)
Power handling nominal	150 W
Power handling programme	325 W
Power handling peak	650 W
Components	4 x 0.75" Compression driver on vertically adjustable horn 2 x 4" Mid-range driver in cardioid chamber 4 x 4" low-frequency driver in adjustable bass-reflex/cardioid chamber
Connectors	speakON NL4 (1+/1-) // Phoenix-connector
Enclosure	Birch multiplex with highly resistant finish in RAL 9005 (black) or RAL 9010 (white), 2x M8 thread inserts on base and lid for attaching tripod adapters, TV spigot or recessed mounting bracket for wall mounting, 4x M8 thread inserts on the back of the cabinet for mounting clamp adapters, rear recessed speakOn and Phoenix connector, opaque steel grille with black acoustic foam, adjustable tweeter array, switchable bass reflex or cardioid tuning
Dimensions (H x W x D)	124 x 1190 x 144 mm
Weight	11,8 kg
Colours	<div> <div>■</div> <div>RAL 9005 (black) – standard</div> </div> <div> <div>□</div> <div>RAL 9010 (white) – standard</div> </div> <div> <div>■</div> <div>RAL special colour – optional</div> </div>



K&F E 90 MK II

PASSIVE COLUMN SPEAKER

Concentrated forces








The K&F E 90 MK II is a 2-way passive speaker whose high-performance column speaker design makes it especially suitable for transmission in rooms with difficult acoustics. Column speakers are characterised by a concentration of vertical beam levels. The K&F E 90 MK II already has this effect from 500 Hz, thereby noticeably reducing the reflections from the ceiling and floor. The lean design and technical properties of the system are extremely well-suited for acoustics in churches, lecture halls, sports and multi-purpose halls, community halls and conference rooms. The key difference to conventional point sources is immediately noticeable and impressive.

Aesthetic clarity

The K&F E 90 MK II is suitable for speech and music transmission and provide impressive sound in both low and high-impedance systems. If needed, the subwoofers of the K&F SONA and NOMOS series provide support in the low-frequency range. The system is optically integrated into both historical buildings and also modern glass and concrete architecture. The timeless design particularly appeals to users and architects due to the lean column form and the curved front panel.



	K&F E 90 MK II
Operated with	linear Amplifier
Frequency response ± 10 dB	95 Hz – 20 kHz
Frequency response ± 3 dB	140 Hz – 18 kHz
Nominal coverage angles	100° x 20° (low frequency) 70° x 70° (high frequency)
Max. SPL (1 m)	122 dB
Components	4 x 5"/1 x 1"
Impedance nominal	8 Ω
Power handling	150 W
Dimensions (W x H x D)	170 x 670 x 200 mm
Weight	9,5 kg
Colours	<div> <div>■</div> <div>RAL 9005 (black)</div> <div>– standard</div> </div> <div> <div>□</div> <div>RAL 9010 (white)</div> <div>– standard</div> </div> <div> <div>■</div> <div>RAL special colour</div> <div>– optional</div> </div>

ACCESSORIES		K&F E 90 MK II
Adjustable Speaker Mount E 90 MK II		<div> <div>■</div> <div>RAL 9005 (black)</div> </div> <div> <div>□</div> <div>RAL 9010 (white)</div> </div> <div> <div>■</div> <div>RAL special colour</div> </div>
Stand Adapter M6		<div> <div>■</div> <div>RAL 9005 (black)</div> </div> <div> <div>■</div> <div>RAL special colour</div> </div>
TV Spigot Adapter		<div> <div>■</div> <div>black</div> </div>
TV-Spigot 20 mm		<div> <div>■</div> <div>nickel plated</div> </div>
Super Clamp		<div> <div>■</div> <div>black</div> </div>
U-Mount / Ceiling Bracket E 90 MK II		<div> <div>■</div> <div>RAL 9005 (black)</div> </div> <div> <div>□</div> <div>RAL 9010 (white)</div> </div> <div> <div>■</div> <div>RAL special colour</div> </div>
Eyebolt M6 x 15		<div> <div>■</div> <div>black</div> </div>





Harbin Grand Theater, Harbin, China



K&F SEQUENZA 10

LINE ARRAY SYSTEM

The details make the difference

Besides sounding amazing, the K&F SEQUENZA 10 line array system has impressed users worldwide with ease of use and handling. The fast and safe "Snap&Fly" rigging system saves time without cutting corners on safety. All splay angle adjustments of the 3 point rigging system are prepared while the speakers are still on the ground. When lifting the array, the units lock automatically to the pre-set angles for immediate use. The compact dimensions and low weight makes K&F SEQUENZA 10 an outstanding tool for sound reinforcement.

Controlled radiation

An array of four units can generate an impressive maximum sound pressure level of 150 dB. However, behind the array, the system remains extremely calm. Further, utilizing three K&F SEQUENZA 10 B subwoofers in a cardioid configuration maximizes the rear rejection of low frequency. This results in a clear and differentiated sound on stage.

Patented waveformer technology

For more flexible adaptation to local conditions, the K&F SEQUENZA 10 comes in two different horizontal dispersions, narrow (77°) and wide (100°). The pattern of the K&F SEQUENZA 10 N/W is optimized through our patented FLC technology and waveformers. Through the waveguide, the three 1" neodymium HF drivers provide a flat wave front to over 16 kHz. With the impressive high frequency resolution and long throw, the K&F SEQUENZA 10 is convincing in every application. The renowned trade journal "Production Partner" sums this up nicely: "Thanks to the K&F SEQUENZA 10's all around perfected design, the system delivers a performance that can, without exaggerating, be considered as the cutting edge in today's state of technology."

Linear-Phase FIR technology
















With the all-new FIR-filters available on our PLM- and D-Series System Amplifiers, we've created new filter sets for our SEQUENZA products with linear phase response. With these new settings, the spatial resolution and impulse fidelity of the system is significantly improved.





	K&F SEQUENZA 10 N	K&F SEQUENZA 10 W	K&F SEQUENZA 10 B
Operated with	K&F PLM+ Series K&F D Series		
Frequency response -10 dB	44 Hz – 22 kHz 'FR mode' 58 Hz – 22 kHz 'LCut mode'	44 Hz – 23,5 kHz 'FR mode' 58 Hz – 23,5 kHz 'LCut mode'	–
Lower cut-off frequency -10 dB			33 Hz
Frequency response ±3 dB	49 Hz – 18,5 kHz 'FR mode' 87 Hz – 18,5 kHz 'LCut mode'	49 Hz – 23 kHz 'FR mode' 87 Hz – 23 kHz 'LCut mode'	–
Lower cut-off frequency -3 dB			39 Hz
Nominal coverage angle	7° x 77°	7° x 100°	Omnidirectional (a cluster of 3 can be driven in cardioid or hypercardioid)
Max. SPL	141 dB (1 x SEQUENZA 10) 153 dB (4 x SEQUENZA 10)	140 dB (1 x SEQUENZA 10) 153 dB (4 x SEQUENZA 10)	139 dB
Components	2 x 10"/3 x 1"	2 x 10"/3 x 1"	2 x 15"
Loudspeakers per channel	3 ¹	3 ¹	1
Power handling	2 x 300 W _{RMS} 2 x 600 W _{programm}	2 x 300 W _{RMS} 2 x 600 W _{programm}	1800 W _{RMS} 3600 W _{programm}
Dimensions (W x H x D)	795 x 303 x 491 mm	795 x 303 x 491 mm	807 x 471 x 991 mm
Weight	34 kg	34 kg	62 kg
Colours	■ RAL 9005 (black) – standard		

¹ 2 Channels required for 2-way active

ACCESSORIES		K&F SEQUENZA 10 N K&F SEQUENZA 10 W	K&F SEQUENZA 10 B
SEQUENZA 10 Flying Frame		■ black	■ black
SEQUENZA 10 Flying Frame		■ black	■ black
K&F Rotating Clamp 450		■ black	■ black
Transport Cover SEQUENZA 10 N/W		■ RAL 9005 (black)	—
Transport Cover SEQUENZA 10 B		—	■ RAL 9005 black)
K&F BOB (Break-Out-Box)		—	■ black
NL8 prof. Speaker Cable NLT-840 (10 m/15 m/25 m)		■ grey	■ grey
SEQUENZA 10 Speaker Split Adapter		■ grey	—
Speaker-Patch-Cable NLT-425 (0,5 m)		■ grey	—
Speaker-Patch-Cable NLT-425 (1,7 m)		—	■ grey
Rain Protection SEQUENZA 10		■ black	—
Rain Protection SEQUENZA 10 Flying Frame		■ black	■ black
Protective Cover SEQUENZA 10 N/W		■ black	—
Protective Cover SEQUENZA 10 B		—	■ black
SEQUENZA 10 Flying Frame Case		■ black	■ black



Warszawska Jesień 2018, Warszaw, Poland



K&F SEQUENZA 5

LINE ARRAY SYSTEM

Easy, compact & nimble

K&F SEQUENZA 5 is characterised by its ease-of-use, compact size and subtle appearance. Together with "SafeLock", the fast and safe rigging system "Snap&Fly+" saves time, personnel, and nerves, while cutting no corners in safety.

Best connections

Three deployment variants allow the user to optimally respond to the different conditions on-site. With the K&F SEQUENZA 5 W system cases, the angle adjustments of the system can be pre-selected on the ground, and the units lock automatically when lifted. Alternatively, the cases are tipped with three previously connected elements, and are then connected from case to case before rigging. For smaller setups, such as with applications using the VariMount adapter or the downfill adapter SEQUENZA 10 to 5, the K&F SEQUENZA 5 elements can also be individually connected to each other.

New sound dimensions

The K&F SEQUENZA 5 was designed to achieve the effective length for a line array with just a few elements. One of the many technical highlights is the use of the patented Waveformer from the K&F SEQUENZA 10, which is used here as a 100° x 15° version with more vertical coverage. This makes it possible to once again combine technology and design to create superior product advantages. K&F SEQUENZA 5 is not only an acoustically impressive system, but it is also sophisticated mechanically down to the finest detail.


















Linear-Phase FIR technology

With the all-new FIR-filters available on our PLM- and D-Series System Amplifiers, we've created new filter sets for our SEQUENZA products with linear phase response. With these new settings, the spatial resolution and impulse fidelity of the system is significantly improved.





	K&F SEQUENZA 5 W	K&F SEQUENZA 5 B
Operated with	K&F PLM+ Series K&F D Series	
Frequency response -10 dB	59 Hz – 22 kHz 'FR mode' 74 Hz – 22 kHz 'LCut mode'	36 Hz – 147 Hz
Frequency response ±3 dB	70 Hz – 22 kHz 'FR mode' 110 Hz – 22 kHz 'LCut mode'	40 Hz – 100 Hz
Nominal coverage angle	15° x 100°	Omnidirectional
Max. SPL	132 dB (1 x SEQUENZA 5 W) 137 dB (3 x SEQUENZA 5 W)	131 dB (1 x SEQUENZA 5 B)
Components	4 x 5"/3 x 1"	1 x 12"
Loudspeakers per channel	4 recommended / 6 maximum	3
Power handling	350 W nominal (IEC 268-5) 700 W program 1400 W peak	400 W nominal (IEC 268-5) 800 W program 1600 W peak
Dimensions (W x H x D)	368 x 349 x 394 mm	368 x 516 x 614 mm
Weight	16,3 kg	23,6 kg
Colours	<div> <div></div> RAL 9005 (black) – standard <div></div> RAL special colour – optional </div>	

ACCESSORIES		K&F SEQUENZA 5 W	K&F SEQUENZA 5 B
SEQUENZA 5 Flying Frame		■ black	■ black
SEQUENZA 5 Flying Frame Outrigger		■ black	■ black
BOB (Break-Out-Box)		■ black	■ black
K&F Rotating Clamp 450		■ black	■ black
NL8 prof. Speaker Cable NLT-840 (10 m/15 m/25 m)		■ grey	■ grey
NL4 prof. Speaker Cable NLT-425 (10 m/15 m/25 m)		■ grey	■ grey
SEQUENZA 5 Speaker Split Adapter		■ grey	■ grey
Speaker-Patch-Cable NLT-425 (0,5 m)		■ grey	–
Speaker-Patch-Cable NLT-425 (1 m)		–	■ grey
Rain Protection SEQUENZA 5 N/W		■ black	–
Rain Protection SEQUENZA 5 Flying Frame		■ black	■ black
Protective Cover SEQUENZA 5 B		–	■ black
Transport Cover SEQUENZA 5 B		–	■ RAL 9005 (black)
VariMount Adapter SEQUENZA 5 N/W		■ black	–
Downfill Adapter SEQUENZA 10 to 5		■ black	–
Transport Case SEQUENZA 5 N/W (3)		■ black	–
SEQUENZA 5 Flying Frame Case		■ black	■ black



K&F SPECTRA 212, ABLO Group, Poland



K&F SPECTRA

CONVERTIBLE LINE ARRAY SPEAKER

The K&F SPECTRA 212 is a three-way speaker that provides very high performance with the best possible dispersion in a compact form factor. Thanks to the integrated K&F VariQ technology, the K&F SPECTRA 212 can be used as a point source as well as in an array as a line source. To this end, the patented K&F VariQ unit is rotated 90° in just a few steps to switch between point source and line source operation.

The exemplary radiation behaviour in both operating modes makes the K&F SPECTRA 212 ideal as a tool for demanding sound reinforcement tasks, especially in acoustically difficult environments. The three-way system features two 12" woofers in a bass-reflex cabinet, six 5" mid-range speakers in a closed cabinet, and four 1" compression drivers on a K&F Waveformer. The result of this assembly is an extremely distortion-free reproduction throughout the entire frequency spectrum. The K&F SPECTRA 212 is powered by the proven K&F SystemAmp power amplifiers. They drive the box with two amp channels, which ensures the best possible performance and reliability.

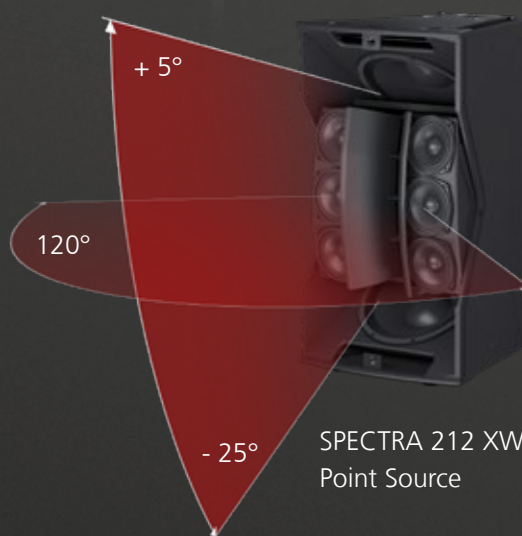
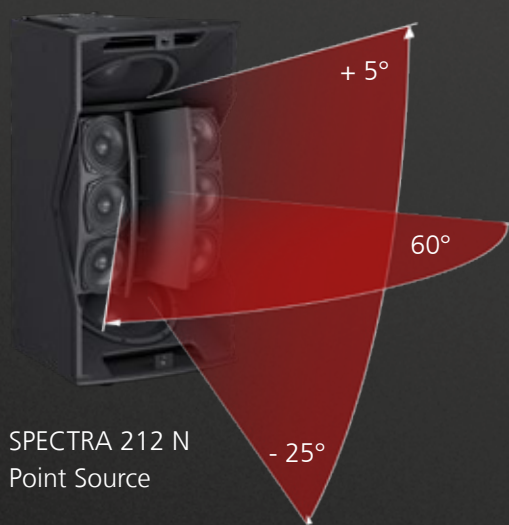
The design of the K&F SPECTRA 212 provides a sonically impressive experience. All details of the source material are transmitted to the audience transparently. The large dynamic range and very high achievable output allows for versatile applications. From small club gigs to large sound systems – the sonic footprint remains absolutely neutral in every situation.

In point-source mode, a K&F SPECTRA 212 emits 60° (N) or 120° (XW) horizontally and +5/-25° vertically. This makes it possible to use a K&F SPECTRA 212 as a single high-performance top. The asymmetrical vertical radiation facilitates alignment with the audience and reduces unwanted ceiling reflections.

In line-source mode, a K&F SPECTRA 212 emits 30° horizontally and 60° (N) or 120° (XW) vertically. With the housing angles and the integrated and unobtrusive connection mechanism, arrays of up to six K&F SPECTRA 212 units can be horizontally arrayed and flown. The system adapts to the requirements, depending on the desired coverage and maximum sound pressure.

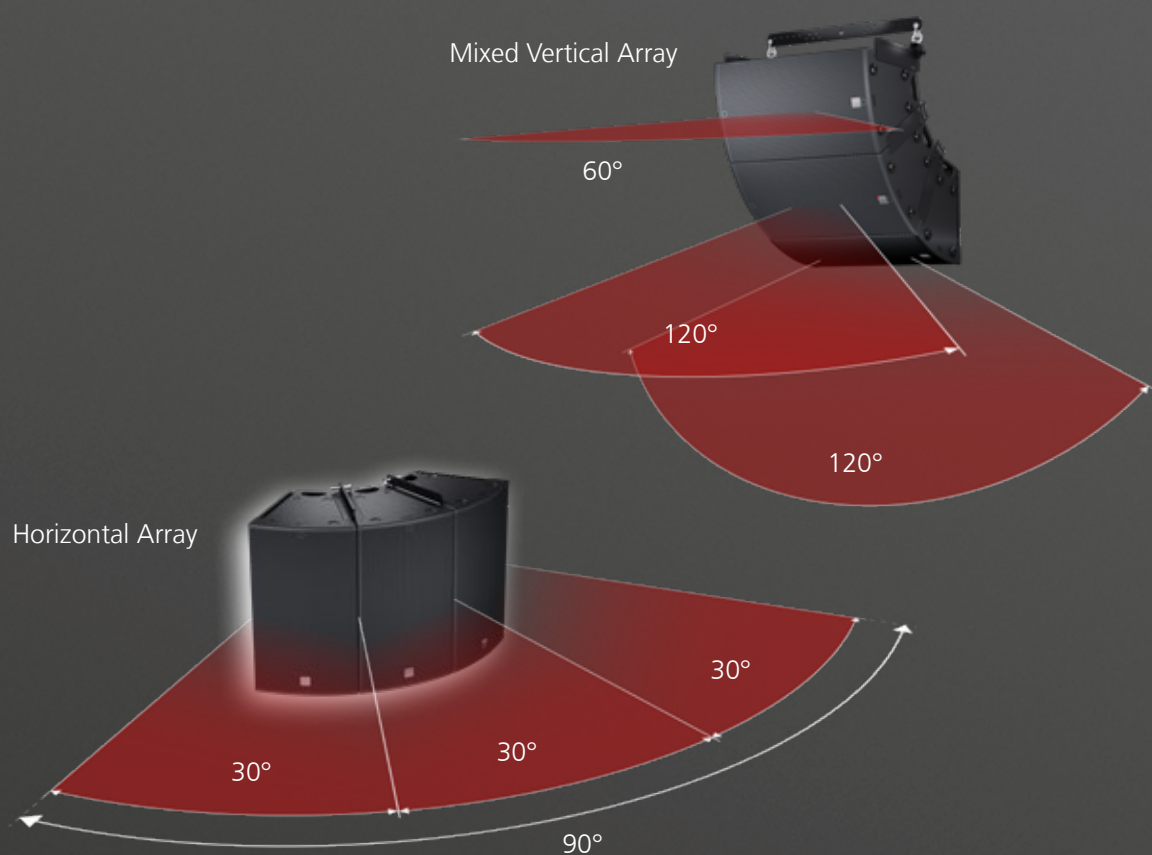
Besides the standard touring-system there's K&F SPECTRA 212i, our Install-Version, which is visually even more inconspicuous and comes with a huge selection of accessories for every possible application.


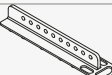
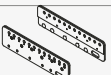






The flexibility and high dynamics achieved in this form for the first time, make the K&F SPECTRA 212 a modern, extremely powerful and precise sound system in the premium segment.



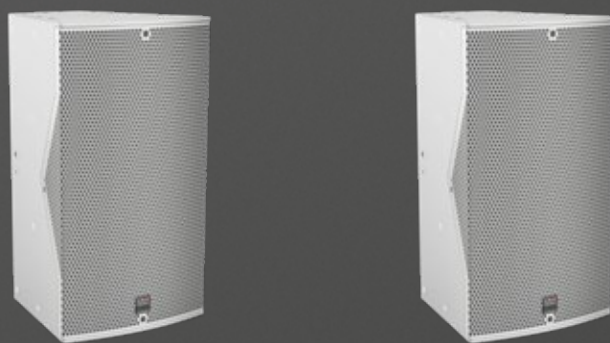


	K&F SPECTRA 212 N	K&F SPECTRA 212 XW
Design	Passive 3-way system, 2-way active equalized	
Operated with	K&F PLM+ Series, K&F D Series (recommended) K&F SystemRack (supported)	
Frequency response -10 dB	Full Range: 56 Hz – 20 kHz Low Cut: 83 Hz – 20 kHz	
Frequency response ± 3 dB	Full Range: 65 Hz – 18 kHz Low Cut: 135 Hz – 18 kHz	
Nominal coverage angle	Line Source: 30° x 60° Point Source: 60° x +5°/-25°	Line Source: 30° x 120° Point Source: 120° x +5°/-25°
Power handling nominal	500 W	
Power handling programme	1.000 W	
Power handling peak	2.000 W	
Max. SPL	Point Source: 141 dB SPL 1 x Line Source (30°): 143 dB SPL 2 x Line Source (60°): 145 dB SPL 3 x Line Source (90°): 146 dB SPL 4 x Line Source (120°): 147 dB SPL	Point Source: 138 dB SPL 1 x Line Source (30°): 140 dB SPL 2 x Line Source (60°): 142 dB SPL 3 x Line Source (90°): 143 dB SPL 4 x Line Source (120°): 144 dB SPL
Impedance nominal	2 x 8 Ω	
Loudspeakers per channel	2 (recommended)/3 (maximum)	
Components	2 x 12" LF, 6 x 5" MF, 4 x 1" HF	
Connectors	2 x speakON® 4-pol NLT4MP (1+/1- LF/HF , 2+/2- MF)	
Enclosure	Frame-reinforced 15mm multiplex enclosure with 30° angle for ideal cluster setups with highly resistant polyurea synthetic coating in black, convertible between line source and point source through rotation of integrated VariQ-unit, integrated flying track system, ergonomic handles on top and bottom for horizontal and vertical transport, sunk-in connector panel, 4 non-abrasive plastic sliding feet on bottom, ball-proof steel grille with black acoustic foam behind the grille.	
Dimensions (W x H x D)	460 x 800 x 460 mm	
Weight	48 kg	
Colours	■ RAL 9005 (black) – standard	



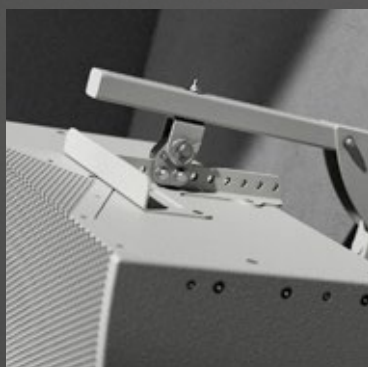
ACCESSORIES	K&F SPECTRA 212
SPECTRA 212 Sub Adapter	
SPECTRA 212 Flybar Connector Horizontal	
SPECTRA 212 Flybar Connector Vertical	
SPECTRA 212 Flybar	
SPECTRA 212 Single Bar	
SPECTRA 212 Transport Cover	
SPECTRA 212 Rigging Aid Set	
SPECTRA 212 Connector	
K&F Rotary Clamp 450	

All accessories are available in ☐ black.



	K&F SPECTRA 212i N	K&F SPECTRA 212i XW
Design	Passive 3-way system, 2-way active equalized	
Operated with	K&F PLM+ Series, K&F D Series (recommended) K&F SystemRack (supported)	
Frequency response -10 dB	Full Range: 56 Hz – 20 kHz Low Cut: 83 Hz – 20 kHz	
Frequency response ±3 dB	Full Range: 65 Hz – 18 kHz Low Cut: 135 Hz – 18 kHz	
Nominal coverage angle	Line Source: 30° x 60° Point Source: 60° x +5°/-25°	Line Source: 30° x 120° Point Source: 120° x +5°/-25°
Power handling nominal	500 W	
Power handling programme	1.000 W	
Power handling peak	2.000 W	
Max. SPL	Point Source: 141 dB SPL 1 x Line Source (30°): 143 dB SPL 2 x Line Source (60°): 145 dB SPL 3 x Line Source (90°): 146 dB SPL 4 x Line Source (120°): 147 dB SPL	Point Source: 138 dB SPL 1 x Line Source (30°): 140 dB SPL 2 x Line Source (60°): 142 dB SPL 3 x Line Source (90°): 143 dB SPL 4 x Line Source (120°): 144 dB SPL
Impedance nominal	2 x 8 Ω	
Loudspeakers per channel	2 (recommended)/3 (maximum)	
Components	2 x 12" LF, 6 x 5" MF, 4 x 1" HF	
Connectors	2 x speakON® 4-pol NLT4MP (1+/1- LF/HF, 2+/2- MF)	
Enclosure	Frame-reinforced 15 mm Multiplex enclosure with 30° angle for ideal cluster setups with highly resistant Polyurea synthetic coating in black, convertible between line source and point source through rotation of integrated VariQ unit, 40 M8 mounting points for dedicated accessories, ball proof steel grille with acoustic foam behind the grille	
Dimensions (W x H x D)	460 x 800 x 460 mm	
Weight	48 kg	
Colours	<div>■ RAL 9005 (black) – standard</div> <div>■ RAL special colour – optional</div>	

¹ Benötigt 2 Kanäle für 2-Weg-Aktiv



ACCESSORIES

K&F SPECTRA 212i

SPECTRA 212i Flying Frame



SPECTRA 212i Wall Arm L



SPECTRA 212i Wall Arm S



SPECTRA 212i Wall/Ceiling Bracket



SPECTRA 212i Wall Bracket Set



SPECTRA 212i Ceiling Bracket



SPECTRA 212i
Horizontal Cluster Flying Set



SPECTRA 212i Cluster Plate Set





SPECTRA 212i Connector Set



SPECTRA 212i Flying Connector Set



Rotate, tilt and pan. With our smart Wall Bracket Set K&F SPECTRA 212i can be perfectly integrated into every room.

All accessories are available in  black and  RAL special colour.



Brave Festival Wroclaw 2015, Wroclaw, Poland



KLING &
FREITAG
SOUND SYSTEMS

K&F GRAVIS

POINT SOURCE SYSTEMS

Compact performance

Weight matters in all areas. In rental business, maximum performance and minimal weight are of essence. This saves cost and everyone is happy to work with it. The effectiveness is increased, and the work is made easier. This is where the K&F GRAVIS range meets the widest range of requirements every day and without compromise. Anything that is visible should be integrated aesthetically. In the mid-high range, all systems have rotatable high frequency horns with a defined dispersion pattern and guarantee a homogeneous distribution of sound. The special polyurea coating, the extremely stable grille, as well as feet for all positions make the K&F GRAVIS series robust against mechanical impact and exceptionally suitable for everyday use. As always, the accessory has also been optimised to the finest detail for practical use – such as thorough fast and tool-free assembly of the swivel bracket on the system. Advantages which the K&F GRAVIS perfectly combines.

Natural sound

K&F GRAVIS is a true Kling & Freitag speaker with a neutral and natural sound. The highest quality standards in reproduction for all styles of music, maximum speech intelligibility and a thrilling live performance are the acoustic features of the K&F GRAVIS product line. All models combine the multifunctional and extremely compact form factor with modern and subtle design.





















	K&F GRAVIS 8 W	K&F GRAVIS 12+ N	K&F GRAVIS 12+ W
Operated with	K&F PLM+ Series K&F D Series K&F IPX		
Frequency response -10 dB	89 Hz – 20 kHz 'LCut mode' 65 Hz – 20 kHz 'FR mode' 62 Hz – 20 kHz 'BassBoost'	80 Hz – 22 kHz 'LCut mode' 65 Hz – 22 kHz 'FR mode' 49 Hz – 22 kHz 'BassBoost'	80 Hz – 23 kHz 'LCut mode' 65 Hz – 23 kHz 'FR mode' 49 Hz – 23 kHz 'BassBoost'
Frequency response ±3 dB	108 Hz – 19 kHz 'LCut mode' 80 Hz – 19 kHz 'FR mode' 70 Hz – 19 kHz 'BassBoost'	105 Hz – 20 kHz 'LCut mode' 95 Hz – 20 kHz 'FR mode' 62 Hz – 20 kHz 'BassBoost'	
Nominal coverage angle	85° x 55°, rotatable horn	65° x 50°, rotatable horn	90° x 50°, rotatable horn
Max. SPL	130 dB	134 dB	133 dB
Components	8"/1"	12"/1,4"	
Loudspeakers per channel	3		
Power handling	250 W nominal (IEC 268-5) 500 W program 500 W peak	400 W nominal (IEC 268-5) 800 W program 1200 W peak	
Dimensions (W x H x D)	254 x 449 x 231 mm	350 x 596 x 318 mm	
Weight	10,1 kg	17,8 kg	
Colours	■ RAL 9005 (black) – standard ■ RAL special colour – optional		



K&F GRAVIS 12+ XW	K&F GRAVIS 15 N	K&F GRAVIS 15 W	K&F GRAVIS 15 XW
K&F PLM+ Series K&F D Series K&F IPX	K&F PLM+ Series K&F D Series		
80 Hz – 23 kHz 'LCut mode' 65 Hz – 23 kHz 'FR mode' 49 Hz – 23 kHz 'BassBoost'	74 Hz – 22 kHz 'LCut mode' 54 Hz – 22 kHz 'FR mode' 52 Hz – 22 kHz 'BassBoost'		
105 Hz – 20 kHz 'LCut mode' 95 Hz – 20 kHz 'FR mode' 62 Hz – 20 kHz 'BassBoost'	100 Hz – 20 kHz 'LCut mode' 64 Hz – 20 kHz 'FR mode' 60 Hz – 20 kHz 'BassBoost'		
110° x 50°, rotatable horn	65° x 50°, rotatable horn	90° x 50°, rotatable horn	110° x 50°, rotatable horn
132 dB	136 dB	135 dB	134 dB
12"/1,4"	15"/1,4"		
3	2		
400 W nominal (IEC 268-5) 800 W program 1200 W peak	500 W nominal (IEC 268-5) 1000 W program 2000 W peak		
350 x 596 x 318 mm	418 x 671 x 384 mm		
17,8 kg	25,9 kg		
<div><div></div> RAL 9005 (black) – standard</div> <div><div></div> RAL special colour – optional</div>			

ACCESSORIES		K&F GRAVIS 8 W	K&F GRAVIS 12+ N K&F GRAVIS 12+ W K&F GRAVIS 12+ XW	K&F GRAVIS 15 N K&F GRAVIS 15 W K&F GRAVIS 15 XW
Adjustable Speaker Mount GRAVIS 8		■ RAL 9005 (black) ■ RAL special colour	–	–
Adjustable Speaker Mount GRAVIS 12		–	■ RAL 9005 (black) ■ RAL special colour	–
Adjustable Speaker Mount GRAVIS 15		–	–	■ RAL 9005 (black) ■ RAL special colour
U-Mount/Ceiling Bracket GRAVIS 8		■ RAL 9005 (black) ■ RAL special colour	–	–
U-Mount/Ceiling Bracket GRAVIS 12		–	■ RAL 9005 (black) ■ RAL special colour	–
U-Mount/Ceiling Bracket GRAVIS 15		–	–	■ RAL 9005 (black) ■ RAL special colour
Distance Rod Short (M20)		■ RAL 9005 (black) ■ RAL special colour	■ RAL 9005 (black) ■ RAL special colour	■ RAL 9005 (black) ■ RAL special colour
Stand Socket M10		■ black	■ black	■ black
Pipe Clamp for TV Spigot		■ black	■ black	■ black
TV Spigot 20 mm		■ nickel plated	■ nickel plated	■ nickel plated
Lifting Pin		■ black	■ black	■ black
Adjustable Wall Mount 50		■ RAL 9005 (black) ■ RAL special colour	■ RAL 9005 (black) ■ RAL special colour	■ RAL 9005 (black) ■ RAL special colour
Eyebolt M10 x 17		■ black	■ black	■ black
Protective Cover GRAVIS 8		■ black	–	–
Protective Cover GRAVIS 12		–	■ black	–
Protective Cover GRAVIS 15		–	–	■ black



K&F CA106 PRO

POINT SOURCE SPEAKER

A modern classic

CA 106 PRO is the swiss army knife in our product line. With its multifunctional housing and the rotatable horn it works perfectly in almost every application you could possibly think of and due to the speakON®-channel-selector you can even connect several speakers in line and still feed them with separate signals. Acoustically CA 106 PRO is a 100% K&F family member. Besides very low distortion and incredibly good gain-before-feedback, it simply sounds amazing.

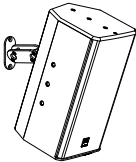
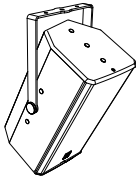
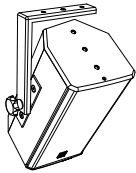
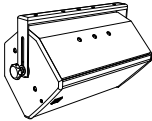






Endless possibilities

No matter in which application you want to use it, it's going to work perfectly. Stand-alone in smaller events or as a fill-system in larger installations – even as a personal monitor. CA 106 PRO will never let you down. You will get the best performance with our system amplifiers of the D-, PLM- and IPX-Series but its smart crossover-design even allows to use it on linear power amplifiers.





	K&F CA 106 PRO
Design	Passive 2-way bass reflex system
Operated with	K&F PLM+ Serie K&F D Serie K&F IPX passive with linear amplifiers
Frequency response -10 dB	65 Hz – 22 kHz
Frequency response ± 3 dB	73 Hz – 20 kHz
Nominal coverage angle	90° x 60° (H x V, Horn drehbar)
Max. SPL	120 dB
Power handling nominal	200 W
Power handling program	400 W
Power handling peak	600 W
Impedance nominal	16 Ω
Components	1" High Dome Tweeter with CD-Horn 6.5" Low Mid Chassis
Connectors	2 x speakON® 4-pol NLT4MP IN parallel to OUT selectable to 1+/1- or 2+/2- by using the switch
Enclosure	12 mm multiplex with highly resistant structured paint (PU) in RAL 9005 (black), Multifunctional enclosure with monitor and cluster angle, 12 x M8 and 2 x M6 thread inserts, ball-proof steel grill with exchangeable black acoustic foam
Dimensions (W x H x D)	195 x 365 x 206,5 mm
Weight	6,1 kg
Colours	■ RAL 9005 (black) – standard □ RAL 9010 (white) – standard ■ RAL special colour – optional

ACCESSORIES		K&F CA 106 PRO
K&F CA 106 PRO Wall Mount		<div> <div></div> RAL 9005 (black) <div></div> RAL 9010 (white) <div></div> RAL special colour </div>
K&F CA 106 PRO U-Type Speaker Mount		<div> <div></div> RAL 9005 (black) <div></div> RAL 9010 (white) <div></div> RAL special colour </div>
K&F CA 106 Adjustable Speaker Mount		<div> <div></div> RAL 9005 (black) <div></div> RAL 9010 (white) <div></div> RAL special colour </div>
K&F CA 106 U-Mount Wall/Ceiling bracket		<div> <div></div> RAL 9005 (black) <div></div> RAL 9010 (white) <div></div> RAL special colour </div>
Super Clamp		<div> <div></div> black </div>
Pipe Clamp		<div> <div></div> black <div></div> aluminium </div>
Stand socket M10		<div> <div></div> black </div>
Stand adapter M8		<div> <div></div> RAL 9005 (black) <div></div> RAL special colour </div>
TV spigot 20 mm		<div> <div></div> black </div>
eyebolt M8 x 20		<div> <div></div> black </div>



The Instrument of Troubled Dreams, Oude Kerk, Amsterdam, Netherlands



K&F PASSIO

MULTIFUNCTIONAL SPEAKERS

Large yet compact

With an impressive reach and considerable depth, the K&F PASSIO is incomparable. By using two 5" drivers in a D'Appolito arrangement, there is much more surface area available than there is with systems with a 6.5" driver. This makes the speaker look very small, though it sounds very large. The acoustical quality is impressive throughout its frequency response. With no distortion or modulation, everything remains neutral and natural, regardless of volume level.

Unobtrusive Design

In physics, black means the absence of (visible) light of any wavelength. Practically invisible. Like K&F PASSIO itself. It does not attract the eye. The concealed mounting options, the connector panel and lean design make this a very attractive speaker.

Even deeper

The K&F PASSIO SUB 12 and K&F PASSIO SUB 15 are the ideal bass extension for the PASSIO series and are equally suitable for combinations with the K&F GRAVIS and K&F SONA Series. K&F PASSIO subwoofers are characterised by low weight and dimensions, an integrated, passive crossover and high degree of efficiency. A dominant combination!





Focus Open
2012
Baden-Württemberg
International Design Award



German
Design Award













NOMINEE 2014



	K&F PASSIO		K&F PASSIO W	K&F PASSIO SUB 12	K&F PASSIO SUB 15
Operated with	K&F PLM+ Series K&F D Series K&F IPX linear amplifier			K&F PLM+ Series K&F D Series K&F IPX	
Frequency response -10 dB	75 Hz – 31 kHz			40 Hz – 100 Hz	33 Hz – 100 Hz
Frequency response ± 3 dB	110 Hz – 28 kHz			44 Hz – 100 Hz	40 Hz – 100 Hz
Abstrahlwinkel nominal	70° x 60°		110° x 60°	Omnidirectional	
Max. SPL	121,5 dB		120 dB	131 dB	132,5 dB
Components	2 x 5"/1"			12"	15"
Loudspeakers per channel	4 ^{1/3} ²			3 ^{1/2} ²	3 ^{1/2} ²
Power handling	200 W nominal (IEC 268-5) 400 W program			400 W nominal (IEC 268-5) 800 W program	
Dimensions (W x H x D)	180 x 415 x 173 mm			502 x 345 x 512 mm	565 x 435 x 510 mm
Weight	5,6 kg		5,2 kg	20,6 kg	25,2 kg
Colours	■ RAL 9005 (black) – standard □ RAL 9010 (white) – standard ■ RAL special colour – optional			■ RAL 9005 (black) – standard ■ RAL special colour – optional	

¹ with K&F PLM+ or K&F D Series

² with K&F IPX

ACCESSORIES		K&F PASSIO / W	K&F PASSIO SUB 12	K&F PASSIO SUB 15
Adjustable Speaker Mount PASSIO		■ RAL 9005 (black) □ RAL 9010 (white) ■ RAL special colour	–	–
Pin-Joint Adapter PASSIO		■ black	–	–
Super Clamp		■ black	–	–
Mini TV Spigot		■ black	–	–
Stand Socket M10		■ black	–	–
Adapter Sleeve Stand Socket M10		■ black	–	–
Mounting Bracket PASSIO		■ RAL 9005 (black) □ RAL 9010 (white) ■ RAL special colour	–	–
Distance Rod 337		–	■ black	■ black
K&F BOB (Break-Out-Box)		–	■ black	■ black
Speaker-Patch-Cable NLT-425 (5 m)		–	■ grey	■ grey
Transport Cover PASSIO SUB 15		–	–	■ RAL 9005 (black) ■ RAL special colour
Protective Cover PASSIO SUB 12		–	■ black	–
Protective Cover PASSIO SUB 15		–	–	■ black



Timberjacks, Göttingen, Germany



K&F SONA

PASSIVE INSTALLATION SPEAKERS

Sound and design

Loudspeakers often fall short of architectural demands. However, the K&F SONA series stand out due to their stylish and timeless design. The K&F SONA SUB and K&F SONA SUB II have a more classic design that favors concealed or exposed integration. All full range speakers in the K&F SONA series are equipped with a intelligent ball joint that allows very flexible mounting and orientation. Simple and elegant!

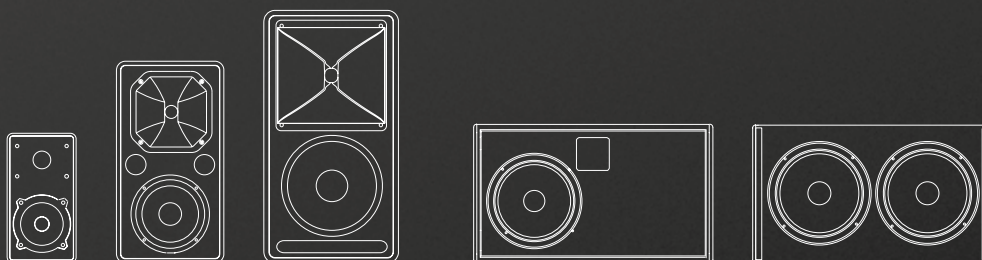
Inner values

While developing the K&F SONA 5, special attention was paid to perfect interaction of the components. Despite the most compact dimensions, this system already has an effective directivity in the high frequencies and astounding level stability. Both of these attributes prove to be particularly valuable for musical sound, especially at medium listening distances. Therefore, they also play a central role in the K&F SONA 6 and K&F SONA 8. Highest standards of speech intelligibility, dyna-

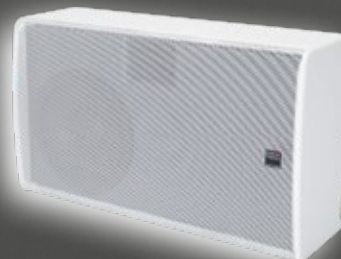
mics and natural sound reproduction are achieved by combining the latest high-tech components with the well-proven CD horns from the K&F CA series, which can also be rotated 90° in the K&F SONA 6 and K&F SONA 8 models.

Precision and dynamics

The products from the K&F SONA range combine the precision of high-value HiFi speakers with the dynamics of PA systems. The listener is then opened up to the indistinguishable sound philosophy of Kling & Freitag – the natural and neutral reproduction of sound at all volumes. The systems from the K&F SONA series are already impressive in combination with linear power amplifiers. The K&F SystemAmps are the ideal amplifiers for the highest demands. The available K&F presets ensure maximum operating reliability and an optimal sound experience.








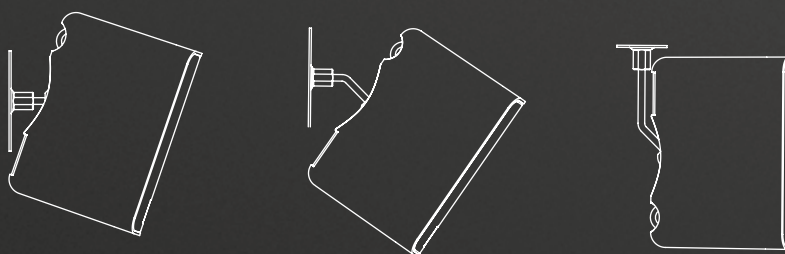


	K&F SONA 5	K&F SONA SUB
Operated with	K&F PLM+ Series K&F D Series K&F IPX linear amplifier	
Frequency response -10 dB	80 Hz – 23 kHz	32 Hz – 100 Hz (half space) ¹
Frequency response ±3 dB	110 Hz – 22 kHz	42 Hz – 100 Hz (half space) ¹
Nominal coverage angle	120° x 90° (H x V)	Omnidirectional
Max. SPL	118 dB	117 dB SPL (half space) ¹
components	5"/1"	8"
Impedance nominal	16 Ω	8 Ω
Power handling	100 W RMS IEC 268-5	150 W nominal 300 W program
Special features	–	Option XO (passive crossover)
Dimensions (W x H x D)	140 x 230 x 170 mm	536 x 310 x 176 mm
Weight	2,8 kg	7,5 kg
Colours	■ RAL 9005 (black) – standard □ RAL 9010 (white) – standard ■ RAL special colour – optional	

¹ filtered and equalized with optional K&F SystemAmp or with option 'XO'



ACCESSORIES		K&F SONA 5
Quick Chain Link for SONA		<div> <div></div> silver </div>
Mounting Arm S (32 mm) SONA 5		<div> <div></div> RAL 9005 (black) </div> <div> <div></div> RAL 9010 (white) </div> <div> <div></div> RAL special colour </div>
Mounting Arm L (109 mm) SONA 5		<div> <div></div> RAL 9005 (black) </div> <div> <div></div> RAL 9010 (white) </div> <div> <div></div> RAL special colour </div>



SONA 5 with Mounting Arm S (32 mm)/M (56 mm) (delivery standard)/L (109 mm)



	K&F SONA 6	K&F SONA 8	K&F SONA SUB II
Operated with	K&F PLM+ Series K&F D Series K&F IPX linear amplifier		
Frequency response -10 dB	65 Hz – 26 kHz 'passiv' 60 Hz – 25 kHz 'FR mode' ¹ 86 Hz – 26 kHz 'LCut mode' ¹	61 Hz – 26 kHz 'passiv' 58 Hz – 25 kHz 'FR mode' ¹ 82 Hz – 26 kHz 'LCut mode' ¹	32 Hz – 100 Hz (half space) ²
Frequency response ±3 dB	80 Hz – 20 kHz 'passiv' 65 Hz – 20 kHz 'FR mode' ¹ 106 Hz – 20 kHz 'LCut mode' ¹	77 Hz – 23,5 kHz 'passiv' 62 Hz – 23,5 kHz 'FR mode' ¹ 104 Hz – 23,5 kHz 'LCut mode' ¹	42 Hz – 100 Hz (half space) ¹
Nominal coverage angle	90° x 60° (H x V, rotatable horn)	85° x 55° (H x V, rotatable horn)	Omnidirectional
Max. SPL	121 dB	127 dB SPL	123 dB SPL (half space) ²
components	6,5"/1"	8"/1"	2 x 8"
Impedance nominal	8 Ω	8 Ω	2 x 8 Ω (Stereo)/4 Ω (Mono)
Power handling	100 W nominal (IEC 268-5) 200 W program 400 W peak	250 W nominal (IEC 268-5) 500 W program 1000 W peak	300 W nominal (IEC 268-5) 600 W program 1200 W peak
Special features	–	–	Option XO (passive crossover)
Dimensions (W x H x D)	195 x 366 x 232 mm	240 x 450 x 285 mm	536 x 310 x 485 mm
Weight	6,8 kg	12,2 kg	16,9 kg
Colours	■ RAL 9005 (black) – standard □ RAL 9010 (white) – standard ■ RAL special colour – optional		

¹ filtered and equalized with K&F SystemAmp

² filtered and equalized with optional K&F SystemAmp or option 'XO'



ACCESSORIES

Quick Chain Link for SONA



K&F SONA 6

■ silver

K&F SONA 8

■ silver



Boot-Boo-Hook-Festival, Hanover, Germany



K&F SCENA

STAGE MONITORS

Musical monitoring

Our philosophy proclaims that a sound event shall be rendered as neutral, as natural and as authentic as possible. Whenever music is played live, the monitor speakers K&F SCENA provide extremely precise information to the musician and thus form the basis for a concert of high quality. Their natural sound and the basic tone, which is particularly warm and precise, support the artist's intonation and work, without stress. Also in production, the handling of K&F SCENA monitors is pleasantly simple. Thanks to the outstanding sound characteristics and gain before feedback of the K&F SCENA, it is easy to bring out the important voices and instruments in the mix.

Impressive handling

K&F SCENA have been optimised for operation as stage monitors for live performances and for assignments with high aesthetic requirements, such as in broadcast. The monitors are very flexible and can, if needed, also be suspended at the suspension points (K&F SCENA 15) or mounted on speaker stands. The handling of K&F SCENA is appreciated for the compact dimensions, the low weight and the clever handle. The robust polyurea coating, the stable grille with added acoustic foam and the feet at all positions provide high resistance against mechanical impact. This makes the K&F SCENA an ideal partner on any stage. The discreet low profile design and the hidden connectors provide a sleek look.

The recommended amplifiers for the K&F SCENA are K&F SystemAmps of the PLM or D series. It is also possible to use the especially cost effective K&F IPX or 3rd party linear power amplifiers (K&F SCENA 12). It is the perfect choice in confined spaces and delivers with its big sound contrary to its particular small measurements.

The result counts

The art of operating speaker systems is to reach a high level of performance while economising on resources. K&F SCENA help you to do this with numerous advantages: You save time, transport weight and storage volume. You gain impressive reliability through quality 'Made in Germany'. And you protect your investment through the well-known, long-lasting quality of Kling & Freitag. K&F SCENA means meeting the highest professional demands – efficiently and cost-effectively. Satisfied artists and technical crews, as well as a higher return on investment for rental companies and event organisers, are impressive results. The stage monitors K&F SCENA are ideal tools that make way for what is really important – a well-directed and creative design of acoustical impressions.



	K&F SCENA 12	K&F SCENA 15
Design	Passive 2-way bass reflex system	1-way/2-way active switchable, bass reflex
Operation with	K&F SystemAmps K&F SystemRack K&F IPX linear amplifier	K&F SystemAmps K&F SystemRack K&F IPX
Recommended amplifier power	300 – 750 W RMS/8 Ω	K&F SystemAmps only
Recommended high pass	50 Hz/Bessel 12 dB/Okt	K&F SystemAmps only
Frequency response -10 dB	53 Hz – 20 kHz	49 Hz – 20 kHz
Frequency response ±3 dB	64 Hz – 18 kHz	65 Hz – 18 kHz
Tuning frequency	60 Hz	55 Hz
Coverage angles nominal	80° radial	50° x 70° (h x v)
Power handling (nominal/program/peak)	550 W / 1.100 W / 2.200 W	400 W / 800 W / 1.600 W
Max. SPL	134 dB SPL peak	135 dB SPL (1-channel operation) 137 dB SPL (2-channel operation)
Impedance nominal	6 Ω	8 Ω (1-channel operation) 2 x 8 Ω (2-channel operation)
Loudspeakers per channel	2	3
Components	1/4" High Frequency Driver (Neodym) 12" Coaxial Driver (Neodym)	1/4" High Frequency Driver (Neodym) 15" Koaxial-Chassis (Neodym)
Special Features	integrated self-resetting protection circuit	rotatable HF horn
Connectors	4 x speakON® 4-pol (2 x NLT4MP and 2 x NL4MPR), 1+/1- oder 2+/2- switchable	2 x speakON® 4-pol NLT4MP (parallel) 1 CH/2 CH switchable
Enclosure	Housing with 32° monitor angle, fixing points for accessories, slip-resistant rubber feet	Housing with 35° monitor angle, fixing points for pole mount flange, 4 flying points M8, non-abrasive plastic sliding feet
	both feature 15 mm multiplex with high-strength polyurea plastic coating, ergonomic handles on the sides, hidden port terminal, ball-proof 2 mm steel grille, acoustic foam	
Dimensions (W x H x D)	497 x 300 x 469 mm	640 x 355 x 568 mm
Weight	18,4 kg	23,5 kg
Colours	■ RAL 9005 (black)	■ RAL 9005 (black)
Accessories	K&F SCENA 12 Stand Adapter	–



Przystanek Jezus 2017, Kostrzyn, Poland



K&F NOMOS

SUBWOOFER

Outstanding performance

The new K&F NOMOS subwoofers combine two highly welcome features – significant musicality paired with an outstanding performance. The acoustic tuning of all subwoofers achieves deep and very contoured bass reproduction. The systems that are fitted with 15" and 18" drivers, with cabinets that were designed for truck dimensions, are compatible with each other so can also be combined as cardioid systems. A clear design language, which is maintained in all combinations, was implemented. The speakON® connector, which conceals the cabling in the cardioid application behind the rotatable logo, is also suitable for this.

The K&F system subwoofer

K&F NOMOS was designed to sonically match every K&F system. The series contains six different high-performance subwoofers. This guarantees optimum integration with all of our loudspeakers from small speakers like SONA and PIA up to large arena-systems like SPECTRA or SEQUENZA and everything in between. The subwoofer systems of the K&F NOMOS range offer professionals an efficient, precise and musical tool for solid sonic foundation.




























	K&F NOMOS LS II	K&F NOMOS LT
Operated with	K&F PLM+ Series K&F D Series	
Crossover Frequencies	100 Hz/60 Hz	
Lower cut-off frequency (-3 dB/-10 dB)	38 Hz/33 Hz	35 Hz/30 Hz
Nominal coverage angles	Omnidirectional (a cluster of 3 or in combination with NOMOS LT can be driven in cardioid))	Omnidirectional (a cluster of 3 or in combination with NOMOS LS II can be driven in cardioid)
Max. SPL (peak)	136 dB	141 dB
Components	15"	2 x 15"
Loudspeakers per channel	2	1
Power handling (nominal/program)	1500 W 3000 W	3000 W 6000 W
Dimensions (W x H x D)	541 x 471 x 640 mm	1071 x 471 x 640 mm
Weight	30,3 kg	60,6 kg
Option	optional suspension with K&F Varipoints	
Colours	<div>■ RAL 9005 (black) – standard</div> <div>■ RAL special colours – optional</div>	



K&F NOMOS XLS	K&F NOMOS XLT	K&F NOMOS XLC
K&F PLM+ Series K&F D Series		
100 Hz/60 Hz		
33 Hz/29 Hz	27 Hz/24 Hz	33 Hz/28 Hz
Omnidirectional (a cluster of 3 or in combination with NOMOS XLT can be driven in cardioid)	Omnidirectional (a cluster of 3 or in combination with NOMOS XLS can be driven in cardioid)	Cardioid/Hypercardioid (2 amplifier channels required)
136 dB	141 dB	140 dB
18"	2 x 18"	3 x 18"
2	1	1
1500 W 3000 W	3000 W 6000 W	2000 W/1000 W 4000 W/2000 W
591 x 591 x 740 mm	1191 x 591 x 740 mm	1200 x 600 x 903 mm
41,3 kg	80,5 kg	95 kg
optional suspension with K&F Varipoints		–
<div> <div></div> RAL 9005 (black) – standard <div></div> RAL special colours – optional </div>		

ACCESSORIES		K&F NOMOS LS II	K&F NOMOS LT
Distance Rod 337		■ black	–
Lifting Pin		■ black ¹	■ black ¹
Eyebolt M10 x 17		■ black ¹	■ black ¹
K&F BOB (Break-Out-Box)		■ black	■ black
Speaker-Patch-Cable NLT-425 (5 m)		■ grey	■ grey
Transport Cover NOMOS LS II		■ RAL 9005 (black)	–
Transport Cover NOMOS LT		–	■ RAL 9005 (black)
Protective Cover NOMOS LS II		■ black	–
Protective Cover NOMOS LT		–	■ black

¹ only with option 'Suspension'

ACCESSORIES		K&F NOMOS XLS	K&F NOMOS XLT	K&F NOMOS XLC
Distance Rod 337		■ black	–	–
Lifting Pin		■ black ¹	■ black ¹	–
Eyebolt M10 x 17		■ black ¹	■ black ¹	–
K&F BOB (Break-Out-Box)		■ black	■ black	–
K&F BOB-C (Break-Out-Box)		–	–	■ black
Speaker-Patch-Cable NLT-425 (5 m)		■ black	■ black	■ black
Transport Cover NOMOS XLS		■ RAL 9005 (black)	–	–
Transport Cover NOMOS XLT		–	■ RAL 9005 (black)	–
Transport Cover NOMOS XLC		–	–	■ RAL 9005 (black)
Protective Cover NOMOS XLS		■ black	–	–
Protective Cover NOMOS XLT		–	■ black	–
Protective Cover NOMOS XLC		–	–	■ black

¹ only with option 'Suspension'



Schleswig-Holstein-Music-Festival, Kiel, Germany



K&F SP

SELF-POWERED SPEAKERS

Powerful drive

With this high-quality self-powered loudspeaker system, the best possible sound characteristics and the ideally tuned amplification power are already integrated. This product series is based on selected models from the passive K&F CA and LINE series, which are equipped with state-of-the-art, innovative driver and power amplifier technology. The implemented active electronics are run by the system-specific controller functions and include one to two highly efficient digital and fanless 1 kW class D power amplifiers. The complete electronic system weighs only 2.5 kg (or 4.5 kg). Remarkably powerful!

Completely compatible

All full-range systems from the K&F SP series also have a passive crossover, in addition to the controller and power amplification electronics functions, which ideally complement the known advantages of the K&F passive technology (all-pass filters, safety switches). In this way, the full-range systems and subwoofers of the K&F SP series are completely acoustically compatible with the corresponding passive models from the K&F CA and LINE series.

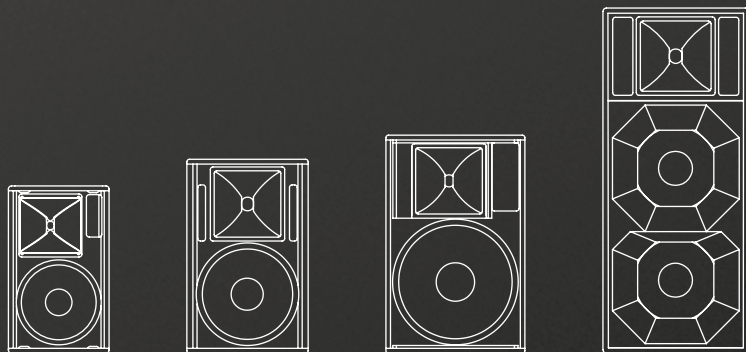
Conceivably simple

All active speakers are ready to be used immediately, since the full-range systems of the SP Series reproduce the complete frequency range. If necessary, K&F SP subwoofers can provide additional support to the bass playback. An optional high-pass filter on the SP subwoofer then determines the ideal crossover frequency. All systems in the K&F SP Series can be combined with one another using the integrated phase alignment.





















	K&F CA 1001 - SP	K&F CA 1215-6 - SP	K&F CA 1215-9 - SP
Frequency response -10 dB	53 Hz – 20 kHz (FILTERS 'OFF')	62 Hz – 22 kHz (FILTERS 'OFF')	58 Hz – 22 kHz (FILTERS 'OFF')
Frequency response ±3 dB	82 Hz – 19 kHz (FILTERS 'OFF') 73 Hz – 19 kHz (FILTERS 'ON')	84 Hz – 19 kHz (FILTERS 'OFF' und FILTERS 'ON')	80 Hz – 19 kHz (FILTERS 'OFF' und FILTERS 'ON')
Nominal coverage angle	85° x 55° (H x V, rotatable horn)	65° x 50° (H x V, rotatable horn)	90° x 50° (H x V, rotatable horn)
Max. SPL (1 m)	124 dB (SPL peak/1 m)	130 dB (SPL peak/1 m)	129 dB (SPL peak/1 m)
Components	10"/1"	12"/1,5"	
Input impedance	50 kΩ		
Max. amplifier power	1000 W		
Dimensions (W x H x D)	313 x 520 x 307 mm	379 x 605 x 375 mm	
Weight	20,8 kg	33,5 kg	
Colours	■ RAL 9005 (black) – standard □ RAL 9010 (white) – standard ■ RAL special colour – optional	■ RAL 9005 (black) – standard ■ RAL special colour – optional	





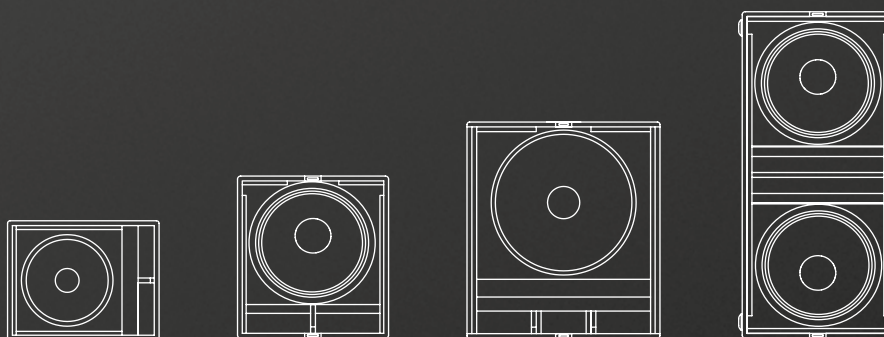
K&F CA 1515-6 - SP		K&F CA 1515-9 - SP		K&F LINE 212-6 - SP		K&F LINE 212-9 - SP	
47 Hz – 22 kHz (FILTERS 'OFF')		48 Hz – 22 kHz (FILTERS 'OFF')		65 Hz – 20 kHz (FILTERS 'OFF') 51 Hz – 20 kHz (FILTERS 'ON')			
77 Hz – 19 kHz (FILTERS 'OFF' und FILTERS 'ON')		75 Hz – 19 kHz (FILTERS 'OFF' und FILTERS 'ON')		130 Hz – 18 kHz (FILTERS 'OFF') 66 Hz – 18 kHz (FILTERS 'ON')			
65° x 50° (H x V, rotatable horn)		90° x 50° (H x V, rotatable horn)		65° x 50° (H x V, rotatable horn)		90° x 50° (H x V, rotatable horn)	
130 dB (SPL peak/1 m)		129 dB (SPL peak/1 m)		135 dB (SPL peak/1 m)			
15"/1,5"				2 x 12"/1,5"			
50 kΩ							
1000 W				2000 W			
434 x 680 x 411 mm				429 x 1025 x 510 mm			
38,9 kg				60,5 kg			
<div><div>■</div> RAL 9005 (black) – standard</div> <div><div>■</div> RAL special colour – optional</div>							

ACCESSORIES		K&F CA 1001 - SP	K&F CA 1215-6 - SP K&F CA 1215-9 - SP	K&F CA 1515-6 - SP K&F CA 1515-9 - SP
Adjustable Speaker Mount CA 1001		<div>■ RAL 9005 (black)</div> <div>□ RAL 9010 (white)</div> <div>■ RAL special colour</div>	—	—
Adjustable Speaker Mount Installation CA 1001		<div>■ RAL 9005 (black)</div> <div>□ RAL 9010 (white)</div> <div>■ RAL special colour</div>	—	—
Adjustable Speaker Mount CA 1215		—	<div>■ RAL 9005 (black)</div> <div>■ RAL special colour</div>	—
Adjustable Speaker Mount CA 1515		—	—	<div>■ RAL 9005 (black)</div> <div>■ RAL special colour</div>
Stand Adapter M8		<div>■ RAL 9005 (black)</div> <div>■ RAL special colour</div>	<div>■ RAL 9005 (black)</div> <div>■ RAL special colour</div>	<div>■ RAL 9005 (black)</div> <div>■ RAL special colour</div>
Pipe Clamp for TV Spigot		■ black	■ black	■ black
TV Spigot 20 mm		■ nickel plated	—	—
TV Spigot 45 mm			■ nickel plated	■ nickel plated

ACCESSORIES		K&F CA 1001 - SP	K&F CA 1215-6 - SP K&F CA 1215-9 - SP	K&F CA 1515-6 - SP K&F CA 1515-9 - SP
Single Stud Fitting		–	■ black	■ black
Threaded Stud		–	■ nickel plated	■ nickel plated
U-Mount/Ceiling Bracket CA 1001		■ RAL 9005 (black) □ RAL 9010 (white) ■ RAL special colour	–	–
Adjustable Wall Mount 50		■ RAL 9005 (black) □ RAL 9010 (white) ■ RAL special colour	■ RAL 9005 (black) □ RAL 9010 (white) ■ RAL special colour	■ RAL 9005 (black) □ RAL 9010 (white) ■ RAL special colour
Eyebolt M10 x 17		■ black	–	–
Protective Cover CA 1001		■ black	–	–
Protective Cover CA 1215		–	■ black	–
Protective Cover CA 1515		–	–	■ black















	K&F SW 112 - SP	K&F SWi 112 - SP	K&F SW 115E - SP
Lower cut-off frequency -10 dB	35 Hz (FILTERS 'ON')		37 Hz (FILTERS 'ON')
Frequency response ± 3 dB	41 Hz – 350 Hz (FILTERS 'OFF') 40 Hz – 120 Hz (FILTERS 'ON')		43 Hz – 150 Hz (FILTERS 'OFF') 42 Hz – 115 Hz (FILTERS 'ON')
Nominal coverage angle	Omnidirectional		
Max. SPL (1 m)	122 dB		125 dB
Components	1 x 12"		1 x 15"
Input impedance	50 k Ω		
Max. amplifier power	1000 W		
Dimensions (W x H x D)	470 x 376 x 520 mm	470 x 370 x 520 mm	470 x 515 x 640 mm
Weight	29,5 kg		37,3 kg
Colours	<div> <div></div> RAL 9005 (black) – standard <div></div> RAL special colour – optional </div>		





K&F SWi 115E - SP		K&F SW 118E - SP		K&F SWi 118E - SP		K&F SW 215E - SP	
37 Hz (FILTERS 'ON')		30 Hz (FILTERS 'ON')				36 Hz (FILTERS 'ON')	
43 Hz – 150 Hz (FILTERS 'OFF')		38 Hz – 300 Hz (FILTERS 'OFF')				42 Hz – 250 Hz (FILTERS 'OFF')	
42 Hz – 115 Hz (FILTERS 'ON')		37 Hz – 115 Hz (FILTERS 'ON')				45 Hz – 100 Hz (FILTERS 'ON')	
Omnidirectional							
125 dB		127 dB				131 dB	
1 x 15"		1 x 18"				2 x 15"	
50 kΩ							
1000 W						2000 W	
470 x 504 x 640 mm		600 x 682 x 770 mm		600 x 672 x 640 mm		481 x 1026 x 770 mm	
37,6 kg		52,3 kg		48,7 kg		72,4 kg	
<div><div></div> RAL 9005 (black) – standard</div> <div><div></div> RAL special colour – optional</div>							

ACCESSORIES		K&F SW 112 - SP	K&F SWi 112 - SP	K&F SW 115E - SP
Eyebolt M12 x 35		–	■ black	–
Distance Rod 337		■ black	–	■ black
Transport Cover SW 115E		–	–	■ RAL 9005 (black) ■ RAL special colour
Protective Cover SW 115E		–	–	■ black

ACCESSORIES		K&F SWi 115E - SP	K&F SW 118E - SP	K&F SWi 118E - SP	K&F SW 215E - SP
Eyebolt M12 x 35		■ black	—	■ black	—
Single Stud Fitting		—	■ silver	—	—
Threaded Stud		—	■ nickel plated	—	—
Distance Rod 337		—	■ black	—	■ black
'Click & Fly' System		—	—	—	■ black ¹
'Click & Fly' SW 215E System Connector		—	—	—	■ black ¹
Quick Release Pin		—	—	—	■ black ¹
Double Stud Fitting		—	—	—	■ silver ¹
Transport Cover SW 118E		—	■ RAL 9005 (black) ■ RAL special colour	—	—
Transport Cover SW 215E		—	—	—	■ RAL 9005 (black) ■ RAL special colour
Protective Cover SW 118E		—	■ black	—	—
Protective Cover SW 215E		—	—	—	■ black

¹ only with option 'Suspension'



Custom-Concept „LINUS“, Bregenz Festival/Floating Stage, Lake Constance, Austria



K&F SWR

SEA WEATHER RESISTANCE

Created to withstand extreme conditions

Premium sound meets premium protection. Our Sea Weather Resistance (SWR) series of speakers are designed for use in harshest weather, utilizing the best materials and coatings to resist corrosion associated with salt air, sunlight and extreme temperatures. Even with the highest level of protection, the acoustic characteristics are unaffected and all SWR series speakers retain the renowned natural KLING & FREITAG sound. This makes SWR speakers the perfect choice for all sea weather locations like beach-clubs, yachts or cruise ships.

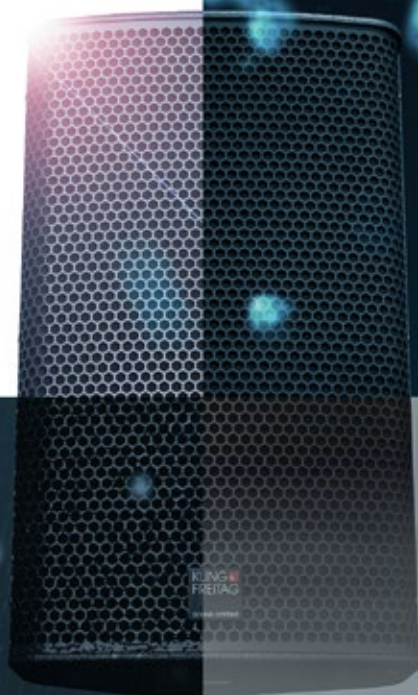


SWR OPTION IS AVAILABLE FOR SELECTED SPEAKER SERIES



UV
RADIATION
RESISTANCE

EXTREME
TEMPERATURE
RESISTANCE



WATER AND
CORROSION
RESISTANCE

SALT AND
HUMIDITY
RESISTANCE

K&F

CUSTOM SOLUTIONS WHEN „SPECIAL“ IS NOT SPECIAL ENOUGH

We have been developing and producing very special loudspeakers for very demanding applications for decades now, but there are always situations in which there are even more special requirements. Sometimes people have ideas that are so wild and crazy that there's just no solution there yet. This is where we are able to really shine, because this is what we are great at! Our Research & Development Team makes up a quarter of our company and we are highly experienced in building very special systems for the wildest applications. If you feel like you do need something really special for your project, just get in touch and we are sure you would be surprised what we might come up with. Because of the many custom solutions projects within the last 30 years we have lots of ideas ready to use. When we get involved, we normally hit the ground running and bring an interesting view to the table which always helps to make some serious progress in demanding projects.

How does it work?

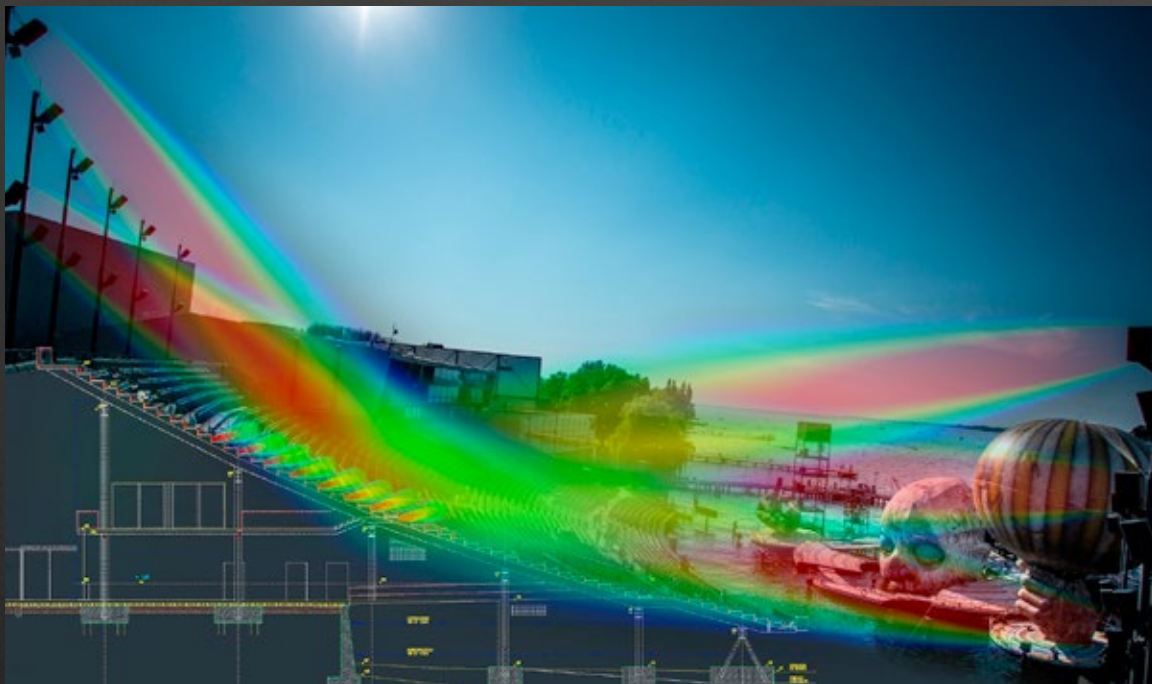
There is no idea too wild for us to think about it, but of course it is not exactly a cost effective solution if you only need a pair of speakers. Anyway, we want to encourage you to get in touch whenever you feel like there is no solution on the market that completely fulfils your needs, maybe K&F custom solutions is exactly what you need. We are ready to talk about your plans and share our ideas. Feel free to reach out to us if you want us to think about your project.

IT AIN'T NO
**ROCKET
SCIENCE**



"You are planning what???"

It has been interesting times and there is not much that we haven't heard throughout the years, so feel free to approach us with every idea you might possibly have. There has been everything from "I need a speaker like this but 2cm smaller" up to "We're planning to implement speakers to our grandstand that fit directly in this narrow opening behind the knees of the person behind you, to bring a personalized set of early reflections to your ears. And yes, they should be waterproof to stay outside for months and we need a couple of hundred of them".



Custom-Concept: Under-Seat-Speaker K&F LINUS, Bregenz Festival, Austria

K&F SYSTEMAMPS

FREITAG

MUTE
ENABLE

METER

MENU

PLM 12K44

44					
ASWL					
-25					
EN2ASWL					
-25					
MD5LT V1.0					
-25					
MD5LT V1.0					
-25					

LCUT

OK

LCUT

OK

100HZ

OK

100HZ

OK



EXIT

lake

Ponto

236

K&F SYSTEMAMPS

LAKE DSP SYSTEM AMPLIFIERS

State of the art technology

The K&F system amplifiers are based on the new PLM+ and D series models of the internationally renowned manufacturer, Lab.gruppen. The power amps, which are designed for both live performances and touring, come with special Kling & Freitag module presets, exclusively for K&F loudspeaker systems. The ideal combination!

Impressive power packs

Through 'Rational Power Management' (RPM), the overall performance of the power amp can be flexibly distributed over various power amp channels. In addition to the power adapter with power factor correction (PFC), which can be used worldwide, there are analog, digital AES3 and redundant Dante™ network audio inputs which

ensure a high degree of fail-safe performance by means of prioritisation (fallback). Control is via Ethernet using the proven Lake® Controller software. With AES67 support an easy interoperability is given for various digital networks.

Lake

The integrated Lake Processor is the industry standard for PA system controlling and offers outstanding flexibility in signal processing. Whether it is asymmetrical filters, look-ahead-limiters or automatic input choice – many details make work more efficient while maintaining highest audio quality. The Analyzer Bridge makes it possible to use third party real time analyzers within Lake Control – for a precise system setup.





	K&F PLM 5K44	K&F PLM 12K44	K&F PLM 20K44
Processor/Network	Lake®/Dante™		
Number of channels	4		
Loudspeaker processing	Up to 4 K&F Lake-Moduls Classic linear-phase FIR-crossover EQ Delay LimiterMax™ with Peak and RMS Limiter		
Dante™ Audio Network	8 x 8 Dante™ I/O, AES67 support		
AES inputs	2 AES inputs (4 audio channels)		
Analog inputs	4 Analog inputs with Iso-Float™, 96 kHz / 24 bit		
Max. output power on all channels¹	1.250 W (4 Ω) 1.250 W (8 Ω)	3.000 W (4 Ω) 1.900 W (8 Ω)	4.400 W (4 Ω) 2.300 W (8 Ω)
Max. output power on a single channel¹	1.750 W (4 Ω) 1.350 W (8 Ω)	4.600 W (4 Ω) 2.300 W (8 Ω)	4.600 W (4 Ω) 2.300 W (8 Ω)
Dimensions (W x H x D)	483 x 88 x 463 mm	483 x 88 x 463 mm	483 x 88 x 463 mm
Weight	11,4 kg	16,5 kg	17 kg

¹ Lab.gruppen burst power (1 kHz, 25 ms burst power @ 150 BPM, 12 dB Crest factor)

ACCESSORIES

K&F CP+ Connector Panel



■ black





	K&F D 10:4		K&F D 20:4	K&F D 40:4
Processor/Network	Lake®/Dante™			
Number of channels	4			
Loudspeaker processing	Up to 4 K&F Lake-Moduls Classic, linear-phase, FIR-crossover, EQ, Delay			
Dante™ Audio Network	8 x 8 Dante™ I/O, AES67 support			
AES inputs	2 AES inputs (4 audio channels)			
Analog inputs	4 Analog inputs with Iso-Float™, 96 kHz / 24 bit			
Max. output power on all channels¹	250 W (4 Ω) 250 W (8 Ω)	500 W (4 Ω) 500 W (8 Ω)	1000 W (4 Ω) 1000 W (8 Ω)	
Max. output power on a single channel¹	1000 W (4 Ω) 1000 W (8 Ω)	1600 W (4 Ω) 1100 W (8 Ω)	1750 W (4 Ω) 1350 W (8 Ω)	
Dimensions (W x H x D)	483 x 44 x 425 mm			
Weight	7,8 kg	7,9 kg	8,3 kg	



	K&F D 80:4		K&F D 120:4	K&F D 200:4
Processor/Network	Lake®/Dante™			
Number of channels	4			
Loudspeaker processing	Up to 4 K&F Lake-Moduls Classic, linear-phase, FIR-crossover, EQ, Delay			
Dante™ Audio Network	8 x 8 Dante™ I/O, AES67 support			
AES inputs	2 AES inputs (4 audio channels)			
Analog inputs	4 Analog inputs with Iso-Float™, 96 kHz / 24 bit			
Max. output power on all channels¹	2000 W (4 Ω) 1500 W (8 Ω)	3000 W (4 Ω) 1900 W (8 Ω)	4400 W (4 Ω) 2300 W (8 Ω)	
Max. output power on a single channel¹	4600 W (4 Ω) 2300 W (8 Ω)	4600 W (4 Ω) 2300 W (8 Ω)	4600 W (4 Ω) 2300 W (8 Ω)	
Dimensions (W x H x D)	483 x 88 x 463 mm			
Weight	14,5 kg	15,8 kg	16,5 kg	

¹ Lab.gruppen burst power (1 kHz, 25 ms burst power @ 150 BPM, 12 dB Crest factor)



K&F IPX

If Dante® and LAKE Processing® are not needed, our K&F IPX System Amplifiers could also be a good idea. With a power output of up to 2 x 1200 W they are the perfect solution for smaller applications. With its 2-channel design, the

smart DSP architecture and the competitive pricing K&F IPX is a perfect sounding, affordable and easy to use solution to get started with K&F speakers.



	K&F IPX 1200	K&F IPX 2400
Processor/Network	IPX Controller via RJ45	
Number of channels	2	
Loudspeaker processing	40 multi-slope parametric equalizers, Adjustable high- and low-pass filters Input and output delays (up to 2 seconds each) Crossover with multiple filter types. Supports K&F IPX speaker presets.	
Dante™ Audio Network	–	
AES inputs	1 x AES/EBU (2 Channels)	
Analog inputs	2 x XLR balanced	
Max. output power on all channels ¹	500 W (2 Ω) 600 W (4 Ω) 300 W (8 Ω)	800 W (2 Ω) 1200 W (4 Ω) 600 W (8 Ω)
Dimensions (W x H x D)	483 x 44 x 336 mm	483 x 44 x 423 mm
Weight	5,3 kg	7,0 kg

¹ Lab.gruppen burst power (1 kHz, 25 ms burst power @ 150 BPM, 12 dB Crest factor)

K&F Operating Modes

This overview explains possible combinations of K&F loudspeakers with recommended power amplifiers.

K&F PLM+ Series



K&F D Series



K&F IPX Series



- ☒ K&F PLM+ Suitable for use with with K&F PLM+ Series SystemAmps
- ☒ K&F D Suitable for use with with K&F D Series SystemAmps
- ☒ K&F IPX Suitable for use with with K&F IPX Series
¹SPL will be limited by the amplifier
- ☒ linear Suitable for use with linear power amplifiers



K&F PIA M

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input checked="" type="checkbox"/> K&F IPX ¹	<input type="checkbox"/> linear



K&F E 90 MK II

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input checked="" type="checkbox"/> K&F IPX ¹	<input checked="" type="checkbox"/> linear



K&F SPECTRA 212(i) N/XW

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input type="checkbox"/> K&F IPX	<input type="checkbox"/> linear



K&F CA 106 Pro

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input checked="" type="checkbox"/> K&F IPX ¹	<input checked="" type="checkbox"/> linear



K&F SEQUENZA 10 Series

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D	<input type="checkbox"/> K&F IPX	<input type="checkbox"/> linear
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K&F SEQUENZA 5 Series

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D	<input type="checkbox"/> K&F IPX	<input type="checkbox"/> linear
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K&F GRAVIS 8/12+

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input checked="" type="checkbox"/> K&F IPX	<input type="checkbox"/> linear

K&F GRAVIS 15

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input type="checkbox"/> K&F IPX	<input type="checkbox"/> linear



K&F PASSIO/W

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input checked="" type="checkbox"/> K&F IPX ¹	<input checked="" type="checkbox"/> linear

K&F PASSIO SUB 12/15

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input checked="" type="checkbox"/> K&F IPX ¹	<input type="checkbox"/> linear



K&F SONA Series

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D	<input checked="" type="checkbox"/> K&F IPX ¹	<input checked="" type="checkbox"/> linear
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K&F SCENA 12

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input checked="" type="checkbox"/> K&F IPX ¹	<input checked="" type="checkbox"/> linear



K&F SCENA 15

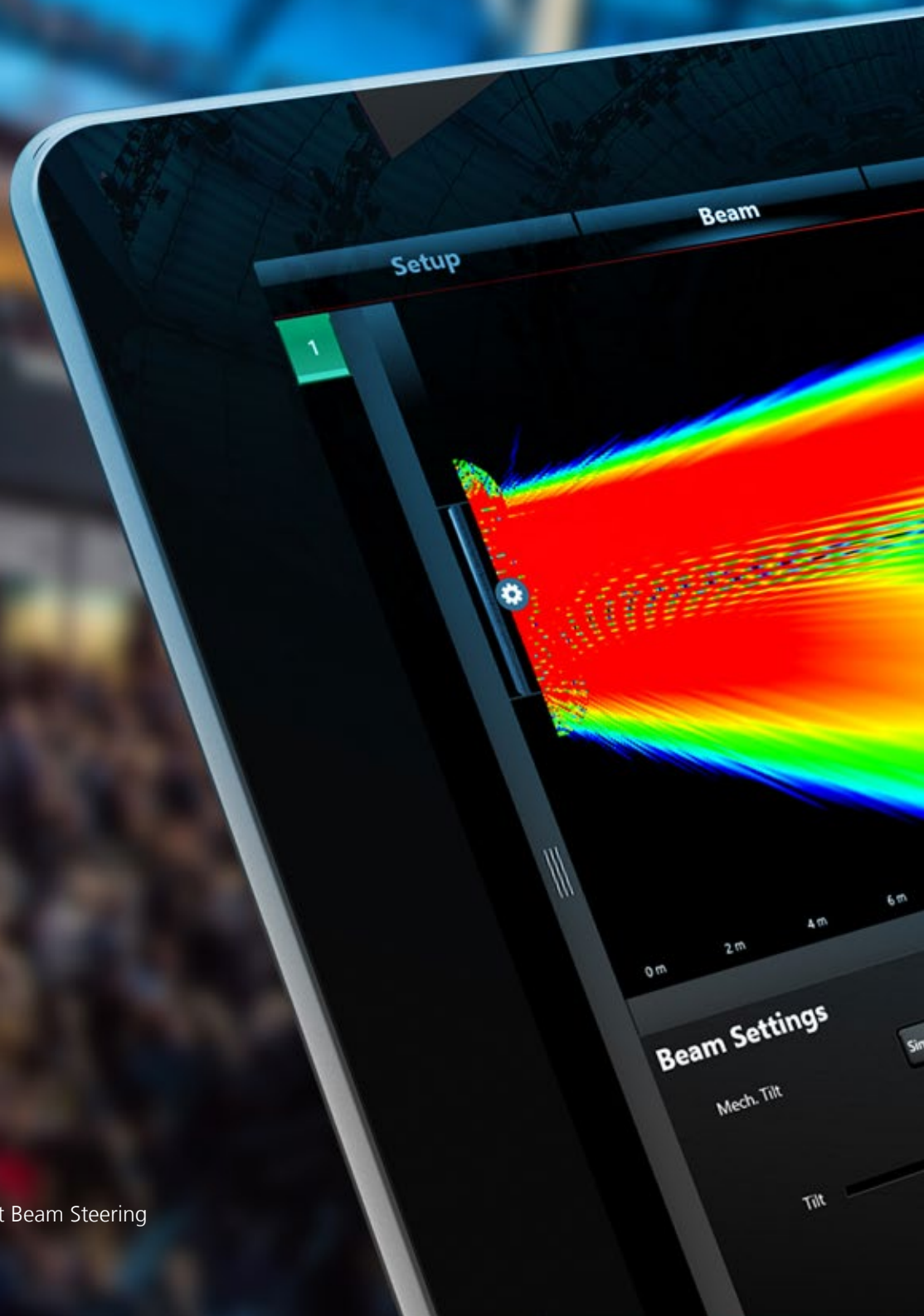
<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D
<input checked="" type="checkbox"/> K&F IPX ¹	<input type="checkbox"/> linear



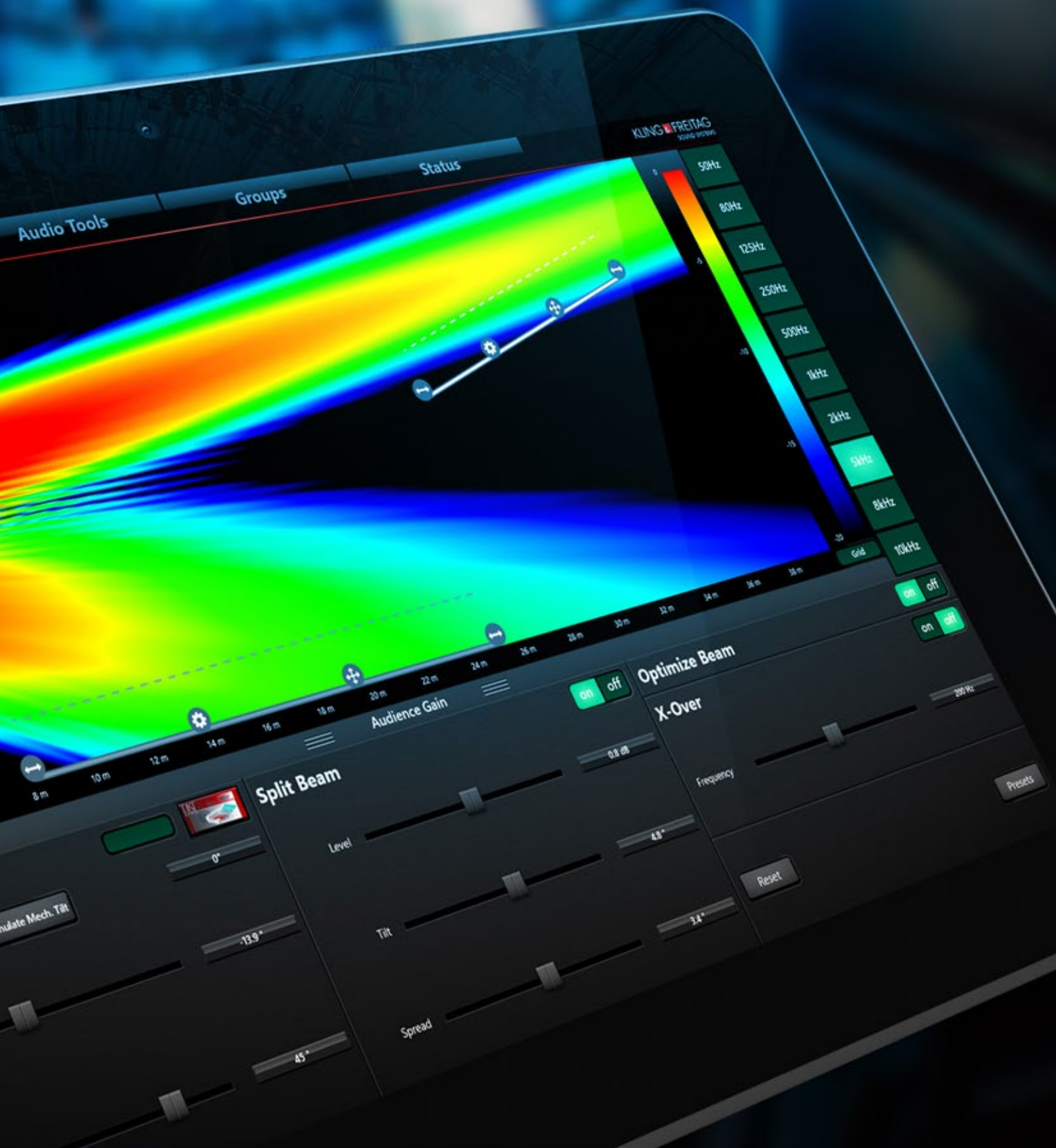
K&F NOMOS Series

<input checked="" type="checkbox"/> K&F PLM+	<input checked="" type="checkbox"/> K&F D	<input type="checkbox"/> K&F IPX	<input type="checkbox"/> linear
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K&F SOFTWARE



K&F VIDA APP, Split Beam Steering



K&F SOFTWARE

CONTROL AND SIMULATION SOFTWARE

Good planning is half the battle

CON:SEQUENZA+ is the acoustic simulation software for Kling & Freitag line array systems, traditional loudspeakers and bass arrays. A valuable tool for practical use. The acoustic calculation can be reproduced very precisely in the horizontal and vertical levels. If required, data may be exported in EASE in order to also take the room-acoustical aspects into account. Already during the planning stage, you can optimise your solutions with regard to sound quality and cost efficiency. Thanks to its intuitive user interface and numerous functions of the simulation views, acoustic coverage results can be checked in advance.

From simulation to the project

The CON:SEQUENZA+ software permits the entry of several arrays and individual systems on different surfaces. The auto splay function

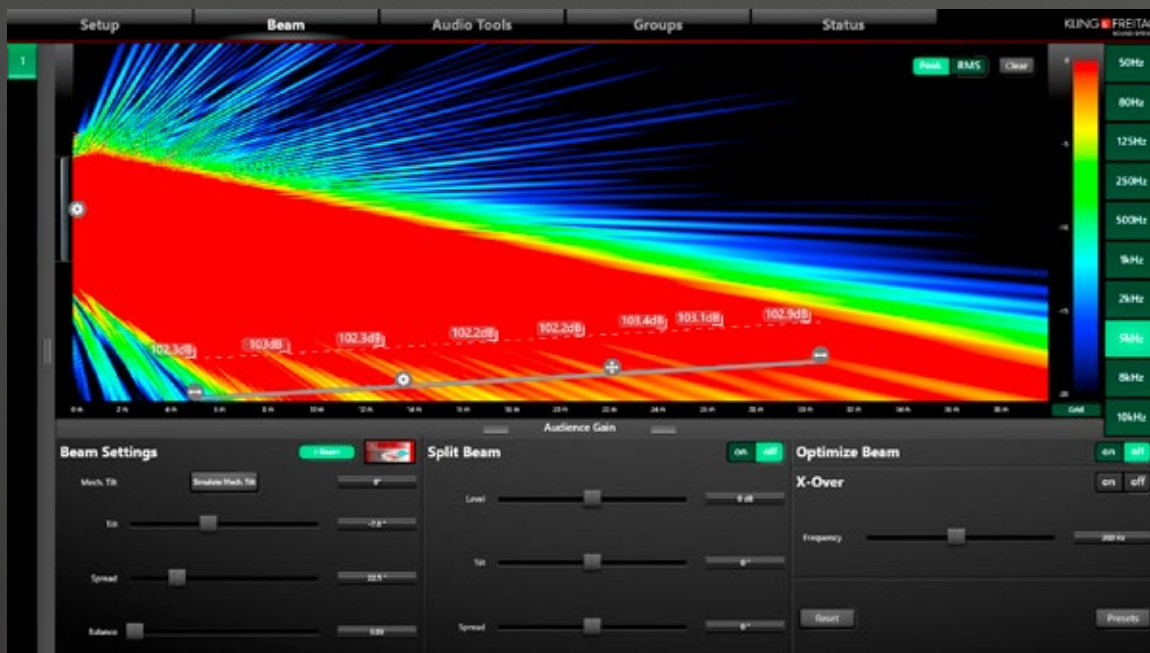
permits the quick and easy calculation of angles between the different line array elements for perfect sound distribution. Virtual measuring microphones may be positioned anywhere in the room to simulate frequency responses and levels.

Safety is always in focus

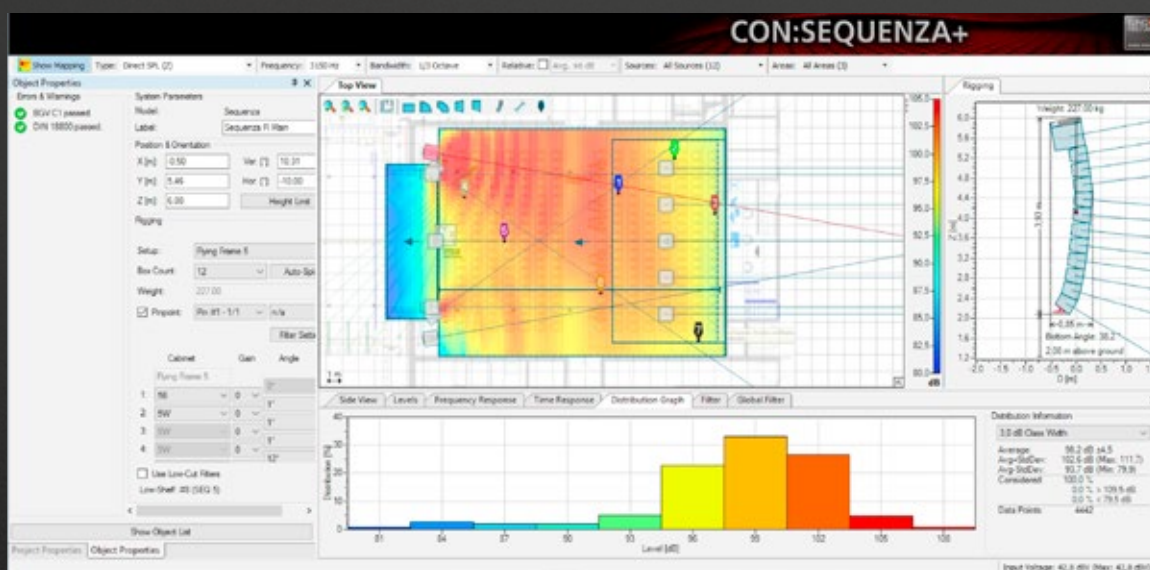
After completing the simulation, CON:SEQUENZA+ can output an entire system report as a PDF file. This report contains static calculations, safety instructions and all the information required for the setup. This makes manual setup easy!

Features

- Static and acoustic calculation of K&F SEQUENZA 5 and 10, and of numerous traditional Kling & Freitag speaker systems
- Bass and bass array simulation for many Kling & Freitag subwoofer models
- Load simulation complying with DGUV V17 (BGV C1) or DIN 18800
- Support of level calculation, time and frequency response and other functions
- Calculation of loads, splay angles and installation positions
- Auto splay function
- Coverage calculation of several arrays (maximum SPL) on different levels
- Retrieval of frequency responses at discretionary positions
- Report on all important information, exportable as in PDF format
- Operating system: Windows XP®/Windows Vista®/Windows 7®/Windows 10®



K&F VIDA APP (details see page 13)



CON:SEQUENZA+

K&F SIMULATION DATA

EASE

This software is an important verification tool for planning room acoustics and sound reinforcement systems. It not only allows for the simulation of acoustic situations in rooms which do not exist yet or are to be remodelled, but also for the testing of sound design solutions, especially in cases where a multitude of loudspeakers or arrays are used.

In order to do this, 3-dimensional acoustic models of the rooms must be generated in the computer. These models can be used for computing a wide range of parameters such as reverberation time, impulse response, sound pressure level distribution of sound systems, speech intelligibility, and many more. To optimise the results, wall arrangements, wall materials, as well as speaker types can be easily changed. For room acoustical analyses, this computer simulation thus provides substantially more comprehensive results for notably less time and effort than the previously utilised measuring techniques using physical models. With the exception of concert hall design or the room-acoustical layout of complicated room structures, the new computer technology has almost completely replaced the technique using physical models.

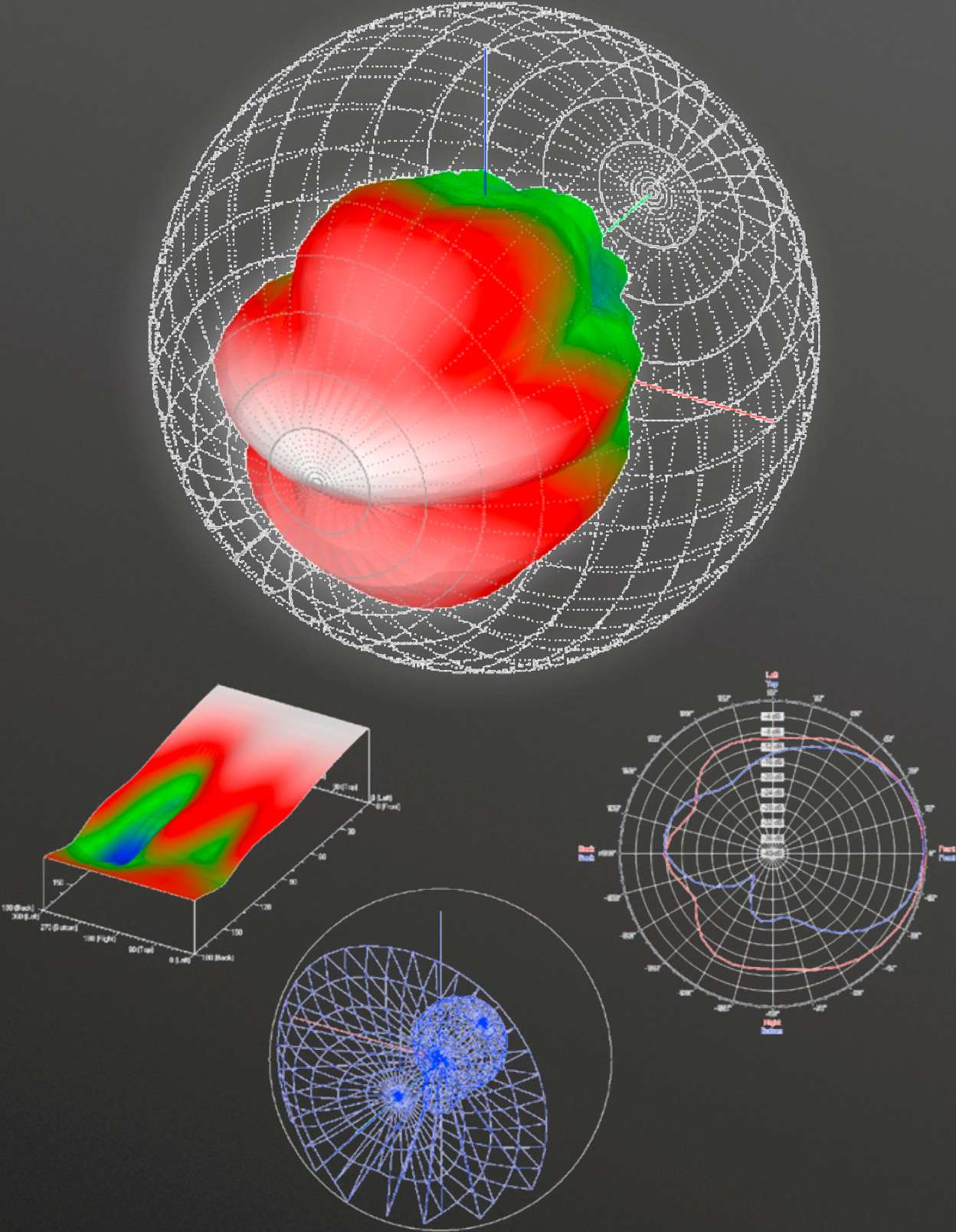
ULYSSES

The CAD program for perfectly calculated room acoustics and electroacoustics ULYSSES® was developed for the daily consulting business at IFB consulting. The objective was to design a very fast, user friendly, and precise tool for acoustic calculations and simulations for the design of sound systems. ULYSSES® works based on a graphically oriented 3-D CAD programme, including all customary CAD functions for high-speed input and simple editing of your projects. An ultra-lean code provides quick simulation results without special hardware and software.

CLF Data

For the simulation in other programs, e.g. CATT-Acoustic or CATT-TUCT, CLF data are available.

► The data sets for the simulation are available at www.kling-freitag.com





ENGLISH



KLING & FREITAG GmbH

Junkersstraße 14 · D - 30179 Hannover

Tel +49 (0)511 969970

www.kling-freitag.com · info@kling-freitag.com