

# Installation solutions to set and forget.

Introducing the new 24S, 24S-D and 21S-SUB loudspeakers

Welcome to System reality.

d&b  
audiotechnik 

# This is not just about new loudspeakers.

# The d&b System reality.



Sydney Opera House, Australia  
(Photographer: Paul Najor)

In practice, the d&b System approach ensures optimum efficiency, performance and ease of use. Loudspeakers, amplifiers and software, along with rigging and networking accessories, integrate harmoniously to deliver precisely what the application requires.

Whatever the situation the d&b ArrayCalc simulation software enables the sonic result to be accurately planned, predicted and perfected. When installing Vi, Yi and Ti line array systems, the optional ArrayProcessing function further enhances the level and tonal balance in the vertical plane, over the entire listening area, while employing a target frequency response regardless of Series type, splay settings or column length.

The dedicated installation amplifiers, 10D and 30D, provide comprehensive loudspeaker management, switchable filtering functions and user-definable equalization and delay capabilities as well as extended input management functionalities, GPIOs and a General Fault connector.

Fallback and Override functions guarantee that emergency and secondary signals are transmitted when needed, while the Input monitoring, Load monitoring and System check functions detect possible errors.

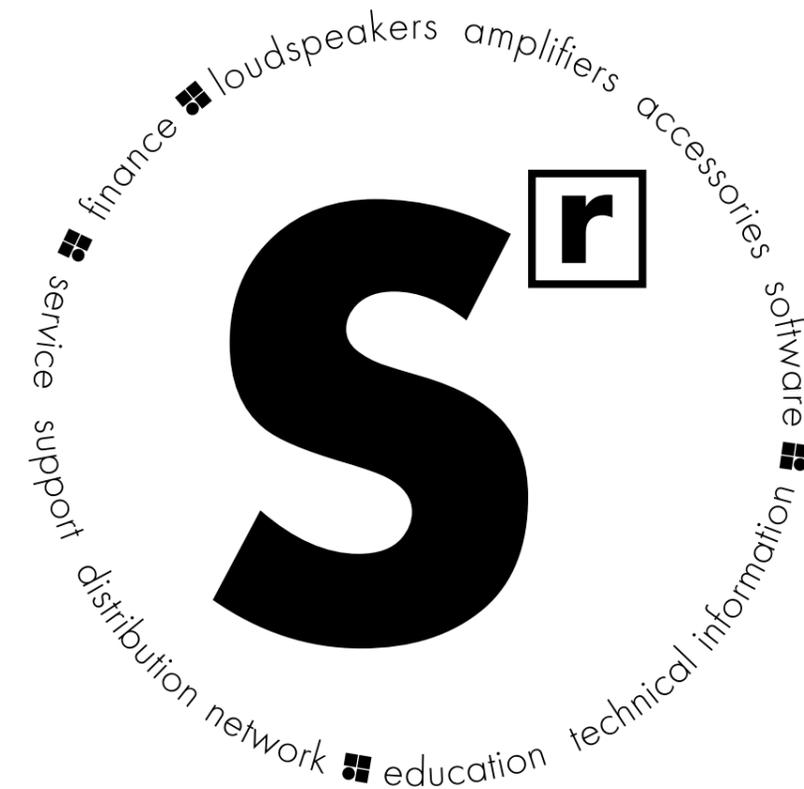
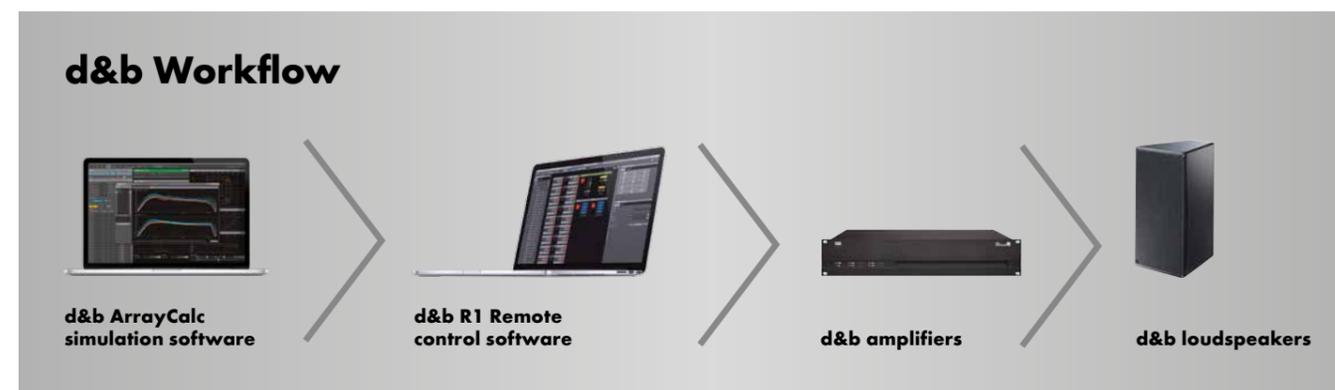
However big or small, the loudspeaker configuration is ultimately assimilated into the d&b R1 Remote control software, a graphical representation for controlling the entire system from anywhere in the network.

A knowledgeable distribution team makes d&b available in every country, with international service, support, and education programs on hand for practical assistance, along with financing options to help realize even the most challenging ambitions.

This is about complete sound reinforcement solutions for permanent installation; about efficient integration, authentic aural impact, and minimal visual distraction.

It's about the 24S, 24S-D and 21S-SUB, the latest introductions to the xS-Series, part of the installation specific range of d&b Systems. Together they set a new standard for permanently installed, professional audio technology.

Since 1981 d&b has been designing and manufacturing system solutions near Stuttgart in Germany. Right from the outset, the d&b approach was to deliver optimal performance and absolute reliability, to transfer the passion of the moment with unmatched clarity and transparency. Whether in flight cases or fixed in place, d&b is recognized and welcomed around the world. System solutions that make sonic excellence an everyday reality, for venues as varied as night clubs, houses of worship, multipurpose centres, stadiums and theatres.



## High performers.



The new 24S, 24S-D and 21S-SUB reset the performance level of the established d&b xS-Series. The 24S and 24S-D house two 12" drivers in a dipolar driver arrangement, resulting in impressive directivity control down to 500 Hz and beyond. This means that energy is not dispersed into the reverberant field, improving speech intelligibility and increasing gain before feedback; ideal wherever vocal clarity is key. Furthermore, with their large cabinet volume, these loudspeakers produce a truly full range performance making them perfect stand-alone solutions.

For more demanding applications, or for bass heavy night clubs and live performances, the 21S-SUB is the counterpart of choice, extending the frequency response of this high performance system down to 35 Hz, and increasing LF headroom. With its single 21" driver, the 21S-SUB can also be used to supplement other installation subwoofers in INFRA mode. In short: redefining the installation possibilities with d&b.

## Night clubs.



Pacha Ibiza, Dubai, United Arab Emirates

Thunderous and emotional. d&b solutions for bass lovers and partygoers, night after night, year after year, without compromising the dynamics of performance. One flexible solution for each distinctive style, whether gut punching low end, all-consuming SPLs, or lazy lounging. With remarkable performance to size ratio, night club solutions are recognized for all the right reasons: output power, low distortion, and stylish indestructibility.

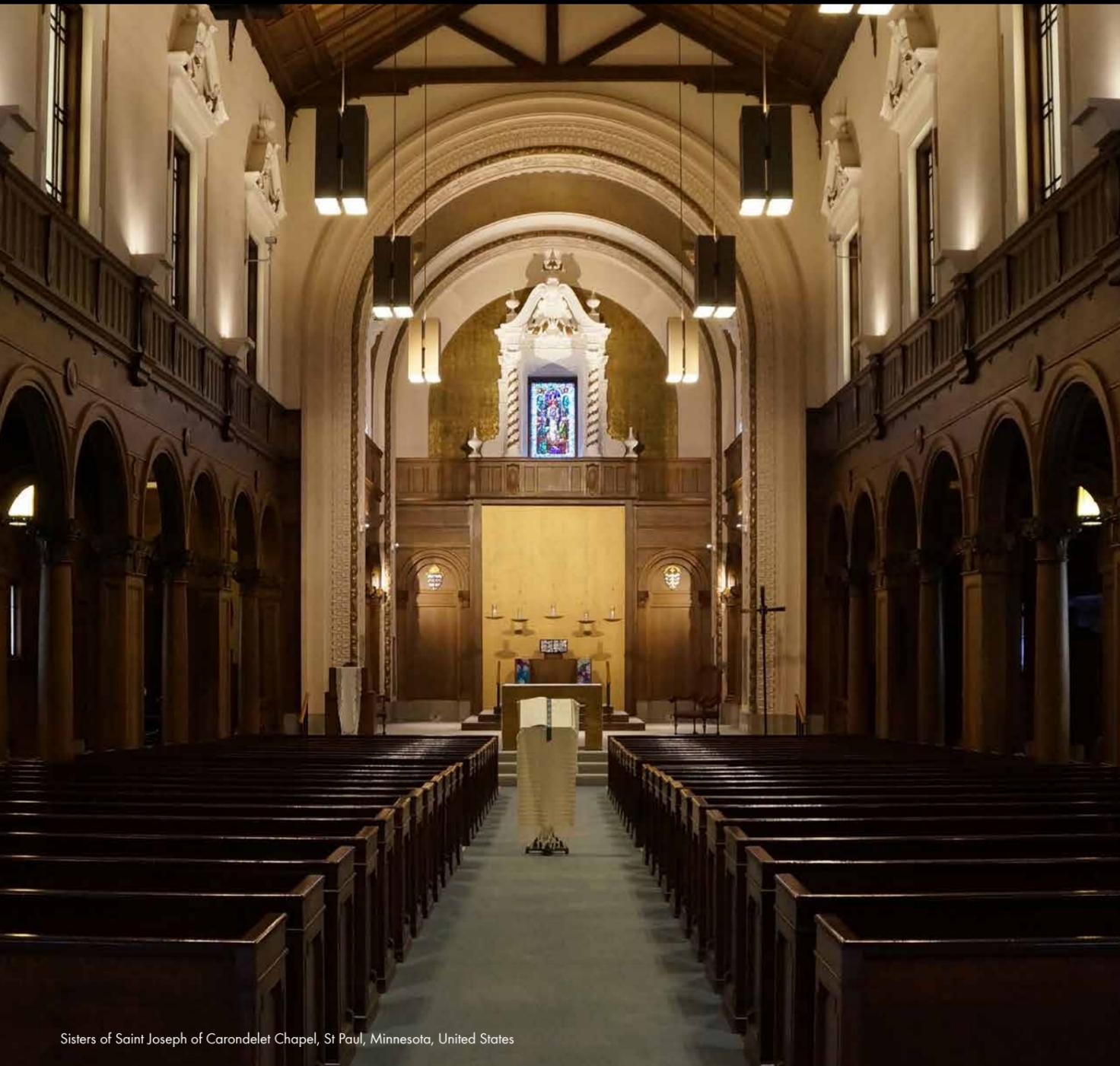
## Live performance venues.



Volkstheater, Cologne, Germany

Small to medium size rooms, with low ceilings, compact stages, and demanding crowds. d&b loudspeakers achieve directivity control to the lowest possible frequencies, resulting in reduced reflections, and the highest gain before feedback when working with open microphones. Offering dependable high performance and consistency, d&b systems are internationally rider-friendly: trusted solutions for transferring passion to the people.

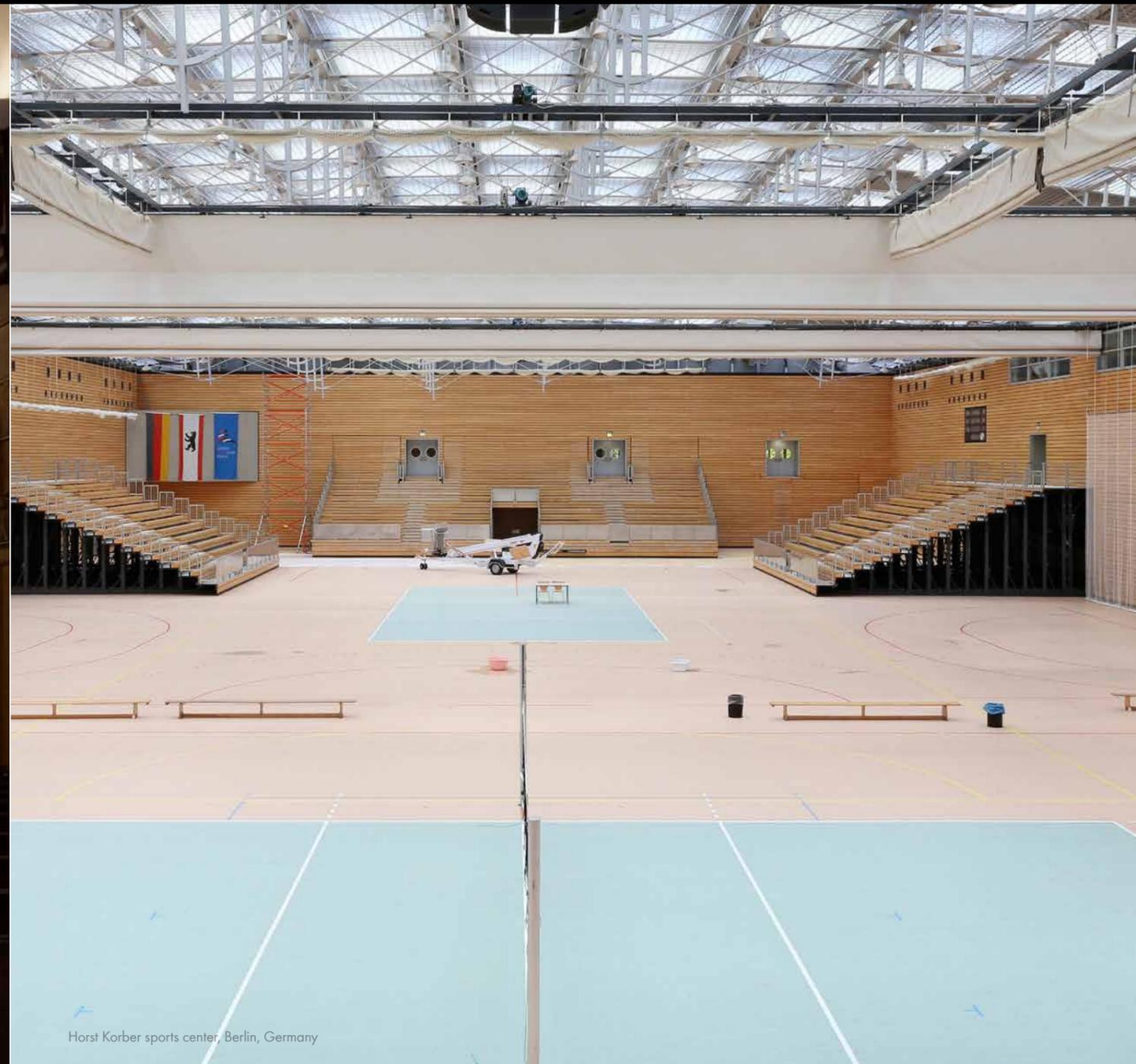
## Houses of Worship.



Sisters of Saint Joseph of Carondelet Chapel, St Paul, Minnesota, United States

Creating impact only where it counts: subtle solutions where clarity connects. From the reverberant magnificence of ancient sacred buildings to contemporary worship spaces, d&b systems provide neutral balanced sound with unprecedented vocal presence and the highest speech intelligibility. Whether spoken word, gospel or modern music, d&b delivers faithfully to the congregation.

## Multipurpose centres.



Horst Korber sports center, Berlin, Germany

Multiple in name, multiple in nature; differing demands from one day to the next. Whether a cultural hub or sports facility, flexible solutions deliver the necessary clarity and headroom to handle material of any kind, be it live music, a keynote speech, or emergency announcement. And because the d&b amplifiers are fully interoperable with current audio transport and remote control protocols, seamless integration comes as standard. Tireless listening, every time.

# Scalable solutions.



xS-Series	4S	5S	8S	10S • 10S-D	12S • 12S-D	24S • 24S-D
<b>Components</b>	4" / 0.75" coaxial	5" / 1" coaxial	8" / 1" coaxial	10" / 1.4" CD	12" / 1.4" CD	2 x 12" / 1.4" CD
<b>Output (1 m)<sup>1</sup> with D6/10D</b>	114 dB SPL	117 dB SPL	124 dB SPL	127 • 127 dB SPL	130 • 130 dB SPL	
<b>Output (1 m)<sup>1</sup> with D20/30D</b>	115 dB SPL	118 dB SPL	127 dB SPL	130 • 130 dB SPL	133 • 133 dB SPL	138 • 137 dB SPL
<b>Output (1 m)<sup>1</sup> with D80</b>	115 dB SPL	118 dB SPL	127 dB SPL	130 • 130 dB SPL	133 • 133 dB SPL	138 • 137 dB SPL
<b>Power rating<sup>2</sup></b>	60 / 400 W	60 / 400 W	150 / 800 W	200 / 1200 W	300 / 1600 W	500 / 2000 W
<b>Frequency response (-5 dB)</b>	130 Hz - 20 kHz	80 Hz - 20 kHz	70 Hz - 20 kHz	60 Hz - 18 kHz	48 Hz - 18 kHz	55 Hz - 18 kHz
<b>Dispersion (h x v)</b>	100° conical	100° conical	100° conical	75° x 50° CD <sup>3</sup> • 110° x 55° CD <sup>3</sup>	75° x 50° CD <sup>3</sup> • 110° x 55° CD <sup>3</sup>	75° x 45° CD <sup>3</sup> • 110° x 45° CD <sup>3</sup>
<b>Nominal impedance</b>	16 Ω	16 Ω	16 Ω	12 Ω	8 Ω	4 Ω
<b>Cabinets per amplifier channel</b>	4	4	4	3	2	1
<b>Dimensions mm (H x W x D)</b>	150 x 120 x 102	240 x 164 x 160	352 x 224 x 205	580 x 283 x 350	638 x 338 x 365	800 x 410 x 420
<b>Weight kg</b>	1	2.5	7.4	13	17	33
<b>Dimension inch (H x W x D)</b>	5.9 x 4.7 x 4	9.4 x 6.5 x 6.3	13.9 x 8.8 x 8.1	22.8 x 11.1 x 13.8	25.1 x 13.3 x 14.4	31.5 x 16 x 16.5
<b>Weight lb</b>	2.2	5.5	16.3	29	37	73

CD: loudspeaker with constant directivity horn <sup>1</sup>SPL<sub>max</sub> peak, test signal: pink noise with crest factor 4 <sup>2</sup>RMS/peak <sup>3</sup>horn 90° rotatable

Application information is presented for guidance only. d&b reserves the right to make any necessary changes to the products and the published specifications. As part of the ongoing development program d&b tries to maintain the highest degree of product compatibility.

From the very small to the more significant, the point source xS-Series provides ample SPLs, with the coverage, frequency response and flexibility to meet the needs of many applications. The tiny, coaxial 4S and 5S are discreet, yet outperform much larger loudspeakers. Alongside the 8S they house a 4", 5" and 8" driver respectively, and provide 100° conical dispersion. The somewhat bigger 10S, and larger still 12S, are biaxial full range, 2-way passive loudspeakers with rotatable horns, employing either a 10" or a 12" LF driver. For wider coverage, 110° x 55° (h x v) makes 10S-D and 12S-D the fitting choice.

With higher SPLs and an extended LF output, the introduction of the 24S and 24S-D takes the performance level of the xS-Series one step further.

As with the 10S, 12S, 10S-D, 12S-D, the 24S and 24S-D are ball impact resistant according to DIN 18032-3, making xS a Series suited even to the toughest of environments.

# Subtle subwoofers.



xS-Series	12S-SUB	18S-SUB	21S-SUB	27S-SUB
<b>Components</b>	12"	18"	21"	front 15" / rear 12"
<b>Output (1 m)<sup>1</sup> with D6/10D</b>	114 dB SPL	129 dB		128 dB
<b>Output (1 m)<sup>1</sup> with D20/30D</b>	127 dB	132 dB	134 dB	131 dB
<b>Output (1 m)<sup>1</sup> with D80</b>	127 dB	132 dB	135 dB	131 dB
<b>Power rating<sup>2</sup></b>	300 / 1600 W	400 / 1600 W	650 / 2600 W	500 / 2000 W
<b>Frequency response (-5 dB)</b>	45 Hz - 130 Hz	37 Hz - 140 Hz	35 Hz - 105 Hz / 33 Hz - 85 Hz <sup>3</sup>	40 Hz - 140 Hz
<b>Dispersion (h x v)</b>				cardioid
<b>Nominal impedance</b>	8 Ω	8 Ω	4 Ω	6 Ω
<b>Cabinets per amplifier channel</b>	2	2	1	2
<b>Dimensions mm (H x W x D)</b>	354 x 530 x 448	490 x 580 x 700	1100 x 580 x 526	490 x 580 x 700
<b>Weight kg</b>	16	32	54	41
<b>Dimension inch (H x W x D)</b>	13.9 x 20.9 x 17.6	19.3 x 22.8 x 27.6	43.3 x 22.8 x 20.7	19.3 x 22.8 x 27.6
<b>Weight lb</b>	35	71	119	90

<sup>1</sup>SPL<sub>max</sub> peak, test signal: pink noise with crest factor 4 <sup>2</sup>RMS / peak <sup>3</sup>Standard mode / INFRA mode

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The xS-Series subwoofers may be smart but don't be fooled by the tame appearance. While the small 12S-SUB produces the lowest output, it's ideal for limited spaces and shares the same sonic character as the larger 18S-SUB, which makes the operating range of the xS-Series suited to any program material.

The 27S-SUB is inherently cardioid, but is driven by a single amplifier channel. It rejects unwanted energy behind the system to greatly reduce the reverberant field at low frequencies and provide the greatest accuracy of low frequency reproduction.

The new 21S-SUB delivers a rumbling bassline from a larger cabinet; it can be used stand-alone, or operated in INFRA mode to complement other installed d&b subwoofers.

For arrayable applications, the 18A-SUB and 27A-SUB share the same format as the 18S and 27S-SUBs, but feature integrated rigging hardware.

# The installation toolbox.

## T-Series



Ti10L



Ti10P



Ti-SUB

## Y-Series



Yi8 • Yi12



Yi7P • Yi10P



Bi6-SUB



Yi-SUB

## V-Series



Vi8 • Vi12



Vi7P • Vi10P



Vi-GSUB



Vi-SUB

## xA-Series



10A • 10A-D



10AL • 10AL-D



18A-SUB



27A-SUB

## xS-Series



4S



5S



8S



10S • 10S-D



12S • 12S-D



24S • 24S-D



12S-SUB



18S-SUB



21S-SUB



27S-SUB

The xA, xS and xC-Series are exclusively intended for installation, designed with venue specific aesthetics and acoustics in mind. Each Series, along with the 10D and 30D amplifiers and the DS10 Audio network bridge, guarantee complete interoperability and integration with current audio and remote networking protocols and infrastructure, including Q-SYST™, Beckhoff, AMX® and MediaMatrix®.

The V, Y and T-Series offer installation i-variants. While these share the same acoustical design and setup within the software and amplifiers as their mobile counterparts, make no mistake: Vi, Yi and Ti are designed to integrate. Unobtrusive cabinet design, rigging systems and accessories mean they're just as easy to set and forget.

All installation cabinets can be supplied with Weather Resistant and Special Colour options: an IP34 rating means they can be operated in changing ambient conditions and finished in any RAL colour. Just a taster of d&b tools for tailoring the task.

Q-SYST™ is a registered trademark of QSC  
Beckhoff is a registered trademark of Beckhoff Automation GmbH

AMX® is a registered trademark of HARMAN International Industries  
MediaMatrix® is a registered trademark of Peavey Electronics Corporation

## xC-Series



16C



24C



24C + 24C-E

## Amplifiers



10D



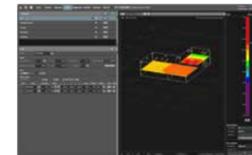
30D

## Audio networking



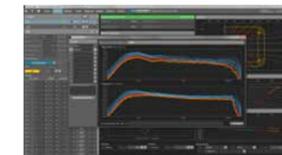
DS10 Audio network bridge

## Prediction



ArrayCalc simulation software

## System optimization



ArrayProcessing

## Remote control



R1 Remote control software

## The arrayable options

Rooms with high ceilings, extended throw and steep coverage areas may benefit from an installation specific line array: the tiny Ti10L, the biaxial xA-Series, the 3-way passive Vi8 and Vi12, or the flexible Yi8 and Yi12.

## Practical point sources

The 3-way passive Vi7P and Vi10P house a unique dual channel horn loaded MF section which increases sensitivity in the mid range for exceptional performance in the vocal region. The Yi7P and Yi10P feature a distinctive LF wave transformer which loads the 8" drivers and improves the low frequency output from a rather compact cabinet. Meanwhile, the tiny Ti10P shares the same dipolar driver arrangement as the larger Yi and Vi loudspeakers, resulting in impressive directivity control to low frequencies.

## Cardioid columns

Acoustically and aesthetically challenging environments demand an unconventional approach. The combination of high vertical directivity and cardioid horizontal dispersion control minimizes reflections from behind the 16C, 24C and 24C-E, reducing dispersion into the reverberant field and increasing gain before feedback. The result is striking speech intelligibility: what makes the xC-Series columns extraordinary.

