



DDQ SERIES
Quality, 1 millisecond ahead...





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Reading loudspeaker brochures and catalogs it seems that every design features awesome power, astonishing performance and incredible versatility. While we certainly feel the same about our brand new DDQ series touring-class powered speakers with digital signal processing we also feel a need to point out what sets them apart and puts them ahead. Suitable for front-of-house sound reinforcement, monitoring, side fill and delay lines or compact PA in live and installed sound applications, DDQ series loudspeakers keep the „PRO AUDIO IN MOTION.“



STATE OF THE ART TECHNOLOGY

DDQ full-range powered loudspeakers have been designed with the objective of making ground-breaking technology accessible for everyone. Our engineers carefully selected and matched premium components for maximum performance and system integration.



TOURING CLASS POWERED PA SPEAKERS WITH DIGITAL SIGNAL PROCESSING (DSP)

The heart of the DDQ series is a state-of-the-art custom 24bit/48kHz Sharc DSP with high-accuracy A/D and D/A conversion and a 127/113dB dynamic range.



2-WAY BI-AMPLIFIED WITH SHARC DSP (24BIT/48KHZ)

The speakers are bi-amplified by two Hypex Class D power stage modules providing flat frequency response irrespective of load impedance.



FAITAL PRO NEODYMIUM WOOFER

Featuring a cast aluminum frame and neodymium magnet slug a Fatial Pro woofer delivers tightly focused low end punch with excellent transient response.



BMS COMPRESSION DRIVER

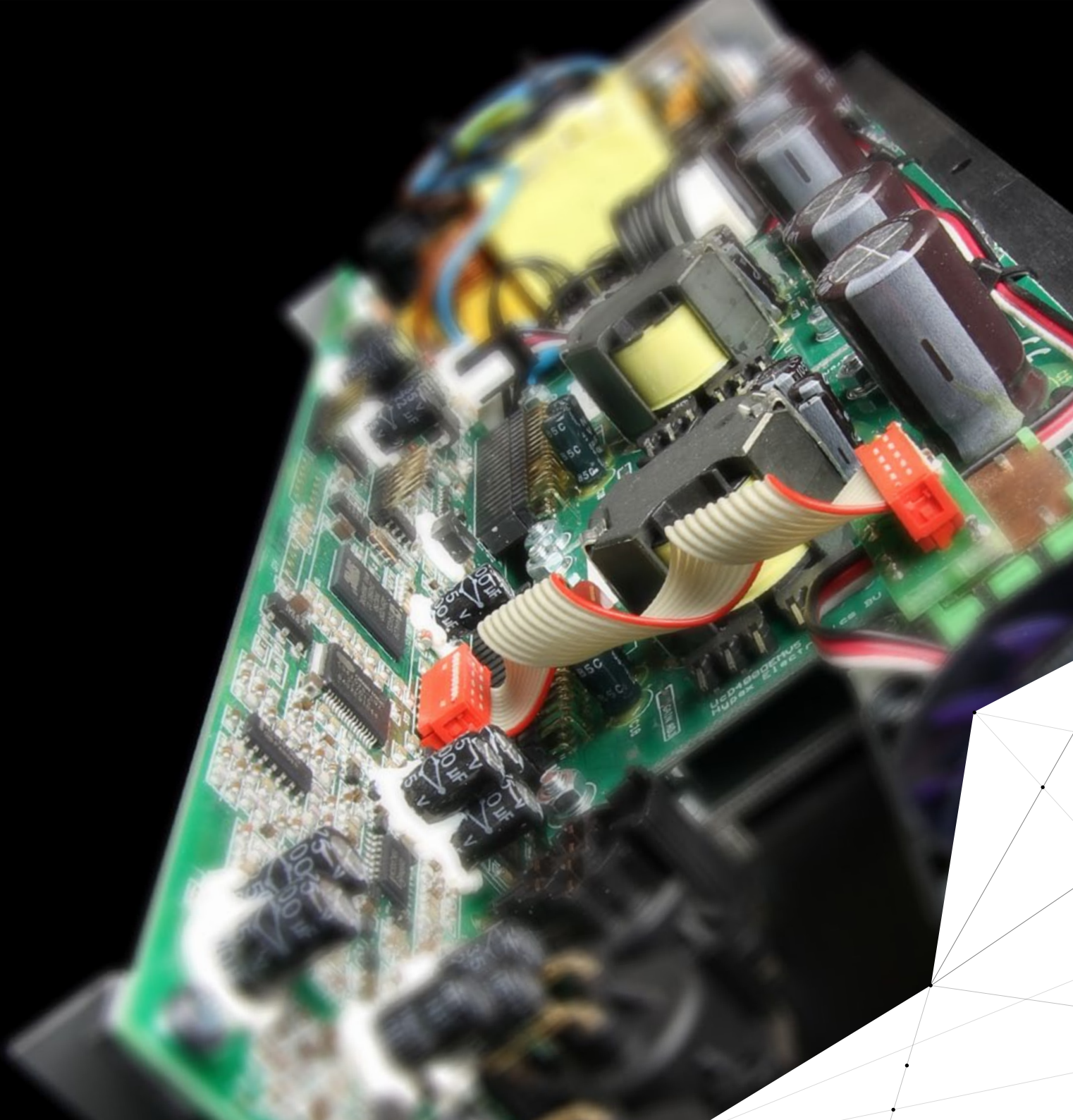
BMS compression drivers were chosen for their very high sensitivity and extended dynamic range resulting in accurate audio imaging with maximum depth and detail up to 20kHz.



ROTATABLE ASYMMETRICAL HF HORN FLARE

Providing a controlled pattern and consistent coverage the asymmetrical LD Systems horn is rotatable for optimum directivity in vertical and horizontal applications.

Housed in road-ready multi-angle birch ply enclosures featuring heavy-duty steel grilles and LD Systems' proprietary Evolution handles for secure portability, each DDQ series powered speaker is "greater than the sum of its parts."



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Hypack Elect

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MAXIMUM PERFORMANCE

2x HYPEx AMPLIFIER MODULES

Max SPL (peak): 132dB (DDQ10) 134 dB (DDQ12) 136 dB (DDQ 15)

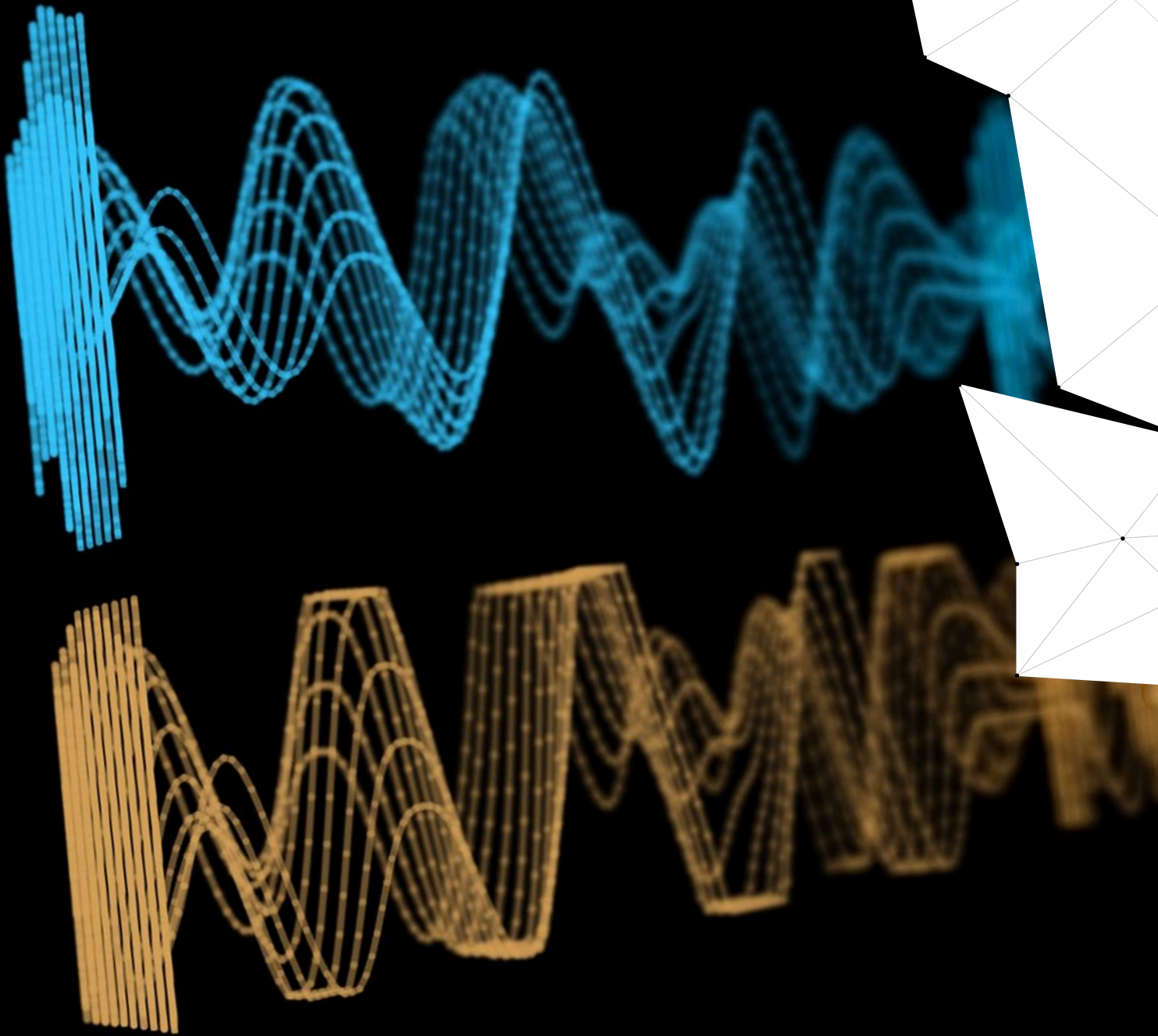
Driven by two Hypex power modules DDQ series loudspeakers are high-energy performers. The superior efficiency of the Hypex Class D design accurately and effortlessly translates signal dynamics producing maximum SPLs of 132dB with the DDQ10, 134dB with the DDQ12 and 136dB with the DDQ15 versions . Using no-compromise components and featuring linear frequency response with very low noise and very low frequency-independent THD, Hypex amplifiers consistently come out tops in listening tests.

STATE OF THE ART ANALOG/DIGITAL CONVERTERS

(127/113dB dynamic range) + Unique DSP programming with IIR-Filters providing ultra-clear sound and flat frequency response.

The stacked A/D and 2-channel D/A converters also deliver five-star performance with increased dynamic ranges of 127dB and 113dB respectively. An additional single-channel DAC has been integrated for the dedicated subwoofer output. Providing comprehensive system management the DDQ series' state-of-the-art Sharc DSP is custom-programmed incorporating carefully implemented IIR filters for a smooth crossover response and proper equalisation.

At the end of the chain a perfectly conditioned signal is fed to the Fatial Pro woofer and BMS compression driver complement for dynamic high-definition audio from the low end to the top.



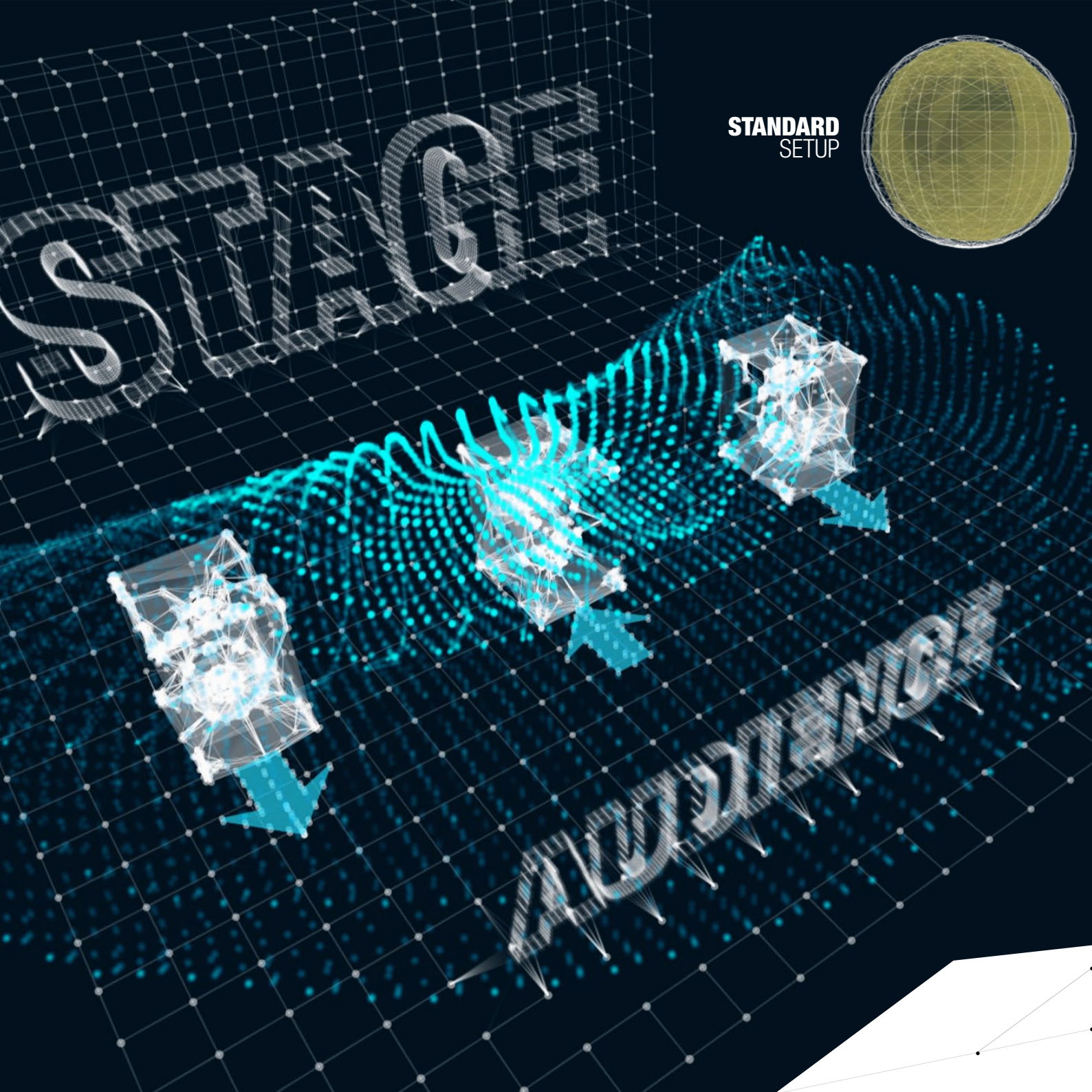
DISTORTION **FREE**

EVEN AT THE HIGHEST VOLUME LEVELS

For consistently impeccable audio quality even at the highest volume levels the DDQ loudspeakers' state-of-the-art DSP includes a look-ahead peak limiter with 1 millisecond latency that effectively prevents digital clipping. This is achieved by splitting the input signal during the analog-to-digital conversion and delaying one side by 1 millisecond. The other side is now ahead in time and used for peak analysis and limiter response control. Actual limiting is applied to the delayed signal which is then routed to the output.

The result is a very smooth and natural-sounding gain adjustment that reduces wave amplitude without truncating the wave crest. From moderate to maximum volume levels, the look-ahead limiter maintains signal integrity enabling the DDQ series powered loudspeakers to deliver crystal-clear distortion-free output.

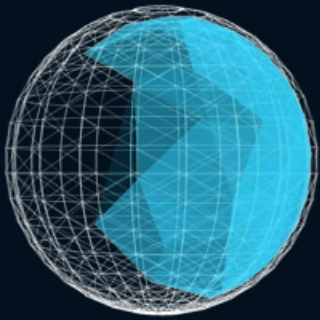
 **LD PREDICTIVE** PEAK LIMITER  **CONVENTIONAL** PEAK LIMITER



**STANDARD
SETUP**

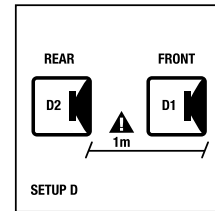
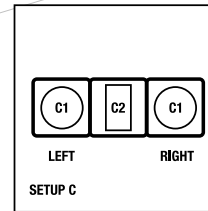
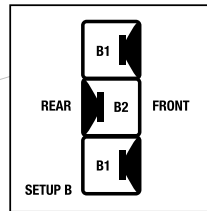
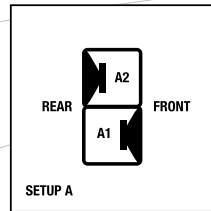
STANDARD

STANDARD



CARDIOID SETUP

CARDIOID SUBWOOFER SETUPS



- Reduces sound pressure level on the rear up to 20 dB
- Keeps stage silent
- Reduces unwanted reflections from rear walls
- Improves sound quality in the audience area
- Easy and quick setup
- No external signal processors needed
- 4 possible cardioid array setups for stacks or arrays of 2 or 3 subwoofers



LOW CUT /
SUB OUT

GROUND
LIFT

SUB OUT
MUTE

SUB OUT

INPUT LINK

ANALOG
INPUT
(MAX. 230V)

12 18 23
4 8 15 21

-5
-10
-16
-26 MUTE

GAIN dB

UTMOST **RELIABILITY**

Next to sonic excellence and superior efficiency the DDQ design team insisted on a most comprehensive set of protection functions for flawless performance and long-term reliability of the DDQ powered loudspeakers.

3 WAY THERMAL PROTECTION

Providing multiple thermal protection, a 3-way setup of DSP-integrated temperature control, convection cooling heat sink and silent fan prevents the power modules from overheating.

RMS LOUDSPEAKER LIMITER

An RMS loudspeaker limiter protects the driver complement from excessive continuous load and voice coil damage.

SMPS POWER SUPPLY & RMS POWER SUPPLY LIMITER

Chosen for its light weight and high efficiency, the switched-mode power supply is protected from overcurrent and overvoltage by an RMS power supply limiter.

DSP BASED VOLUME ADJUSTMENT & SWITCHABLE GROUND LIFT

To allow for extremely accurate, DSP-based volume adjustment delivering the full dynamic bandwidth even at low levels DDQ series loudspeakers feature a digital encoder. The addition of a switchable ground lift is useful to eliminate hum and noise.

MADE IN GERMANY

Assembled in Germany to stringent quality control standards DDQ series loudspeakers are designed for maximum reliability even in the most demanding applications.



EXTREMELY **VERSATILE**

The expert design of the DDQ series powered loudspeakers is perfectly suited for the widest possible range of applications:

- Front-of-house sound reinforcement, monitoring, side fill, delay lines, compact PA in touring, portable and installed sound applications.
- Combining lightweight high-efficiency components in a compact yet durable enclosure, DDQ speakers are powerful performers with easy portability: The DDQ10 weighs in at only 15.5kg, the DDQ12 at 17kg while the DDQ15 weighs in at 25kg. LD Systems' evolutive handles permit a secure grip from all sides.
- Professional setup and connection flexibility is provided by the analog XLR input, analog full-range XLR link output and analog subwoofer output with switchable 100Hz LF crossover.
- For horizontal floor monitor orientation the multi-angle DDQ enclosures feature a 50° angle with side-mounted rubber feet and rotatable horn.
- To enable speaker stand mounting and facilitating directivity adjustment for optimum coverage the DDQ series is fitted with a 3-position tilting pole socket with 13.5° maximum vertical tilt.
- Ready for the rigors of the road, portable PA and installation applications, DDQ series powered speakers are versatile performers on every stage.





OUTSTANDING **VALUE FOR MONEY**

No feature jungle. We broke it down to the essentials:
Immaculate distortion-free sound, high-power performance and utmost reliability in a lightweight package:
DDQ series speakers – today's most advanced technology accessible for everyone.





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EASE-GLL
available online

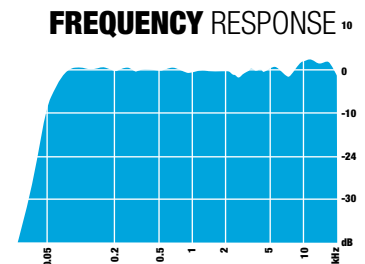
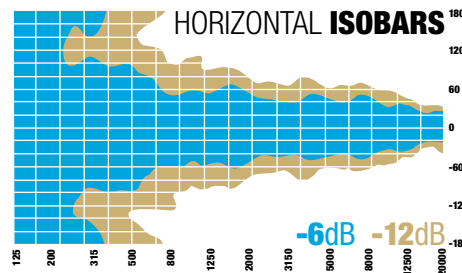
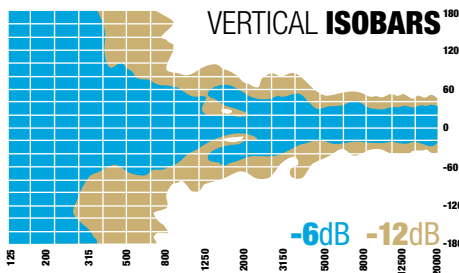
1. LDDDQ10B - TRANSPORT BAG
2. LDDDQ10WB - WALL MOUNTING BRACKET
3. LDDDQ10SB - SWING BRACKET

DDQ10

10" POWERED PA SPEAKER WITH DSP

SPECIFICATIONS

Model name:	LDDDQ10
Type:	PA-Speaker DSP controlled
Frequency range:	59 Hz - 20 kHz
Power output (RMS):	800 W
Max. SPL (peak):	132 dB
Amplification:	2 x Class D
LF transducer:	10" neodymium woofer
HF transducer:	1" compression driver
Dispersion:	80° x 60°
Crossover frequency:	1,5 kHz
Connectors:	Input: XLR / Input link: XLR / Sub out: XLR
Protection:	DSP based "look ahead" limiter, RMS speaker limiter, RMS power supply limiter, over-current, over-voltage
Paint / Cabinet material:	PA painting / 15 mm birch plywood
Dimensions (W x H x D):	315 x 530 x 370 mm
Weight:	15,5 kg
Features:	LD SYSTEMS evolutive handles, stand support adjustable vertically (SM707), switchable ground lift, monitor angle (50°), sub out, switchable low cut, power inlet with locking system







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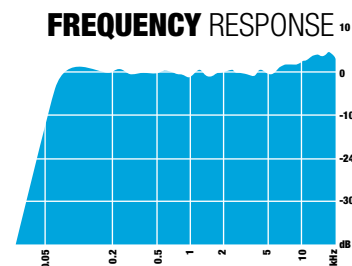
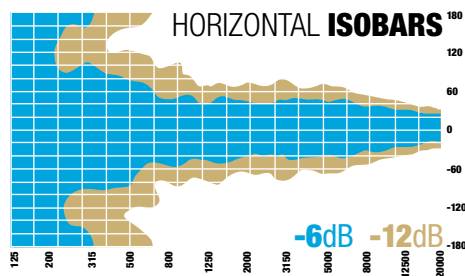
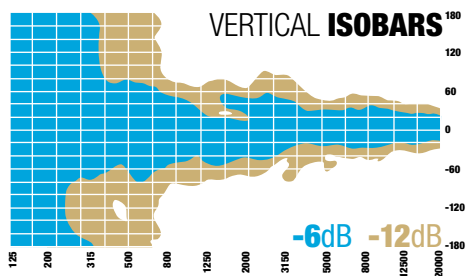
- 1. LDDQ12B - TRANSPORT BAG
- 2. LDDD12WB - WALL MOUNTING BRACKET
- 3. LDDD12SB - SWING BRACKET

DDQ12

12" POWERED PA SPEAKER WITH DSP

SPECIFICATIONS

Model name:	LDDDQ12
Type:	PA-Speaker DSP controlled
Frequency range:	54 Hz - 20 kHz
Power output (RMS):	800 W
Max. SPL (peak):	134 dB
Amplification:	2 x Class D
LF transducer:	12" neodymium woofer
HF transducer:	1" compression driver
Dispersion:	80° x 50°
Crossover frequency:	1,5 kHz
Connectors:	Input: XLR / Input link: XLR / Sub out: XLR
Protection:	DSP based "look ahead" limiter, RMS speaker limiter, RMS power supply limiter, over-current, over-voltage
Paint / Cabinet material:	PA painting / 15 mm birch plywood
Dimensions (W x H x D):	360 x 600 x 378 mm
Weight:	17 kg
Features:	LD SYSTEMS evolutive handles, stand support adjustable vertically (SM707), switchable ground lift, monitor angle (50°), sub out, switchable low cut, power inlet with locking system





100 W RMS	400 W PEAK
150 W RMS	600 W PEAK
180 W RMS	720 W PEAK

POWER

PLEASE DO NOT
SERVICE THIS UNIT
UNLESS YOU ARE
A QUALIFIED ELECTRICIAN

LD SYSTEMS is a member of the LD Group of Companies
Headquarters: 41100, Italy - Bergamo

LD SYSTEMS
DDQ15





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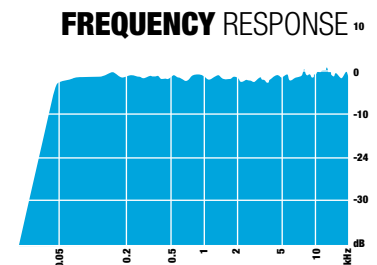
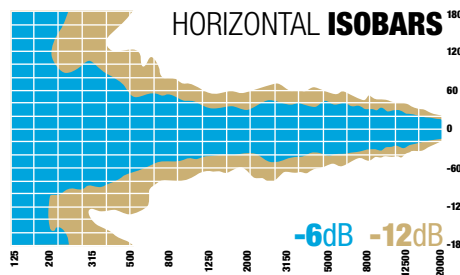
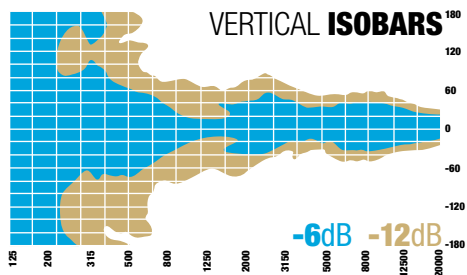
- 1. LDDDQ15B - TRANSPORT BAG
- 2. LDDDQ15WB - WALL MOUNTING BRACKET
- 3. LDDDQ15SB - SWING BRACKET

DDQ15

15" POWERED PA SPEAKER WITH DSP

SPECIFICATIONS

Model name:	LDDDQ15
Type:	PA-Speaker DSP controlled / Bass reflex
Frequency range:	38 Hz - 20 kHz
Power output (RMS):	1400 W
Max. SPL (peak):	136 dB
Amplification:	Class D
LF transducer:	15" FAITAL PRO neodymium woofer
HF transducer:	1,4" BMS compression driver
Dispersion:	80° x 50°
Crossover frequency:	1,3 kHz
Connectors:	Line input: XLR Line output: input link XLR, sub out: XLR
Protection:	DSP based "look ahead" limiter, RMS speaker limiter, RMS power supply limiter, over-current, over-voltage
Paint / Cabinet material:	Polyurea / 15 mm birch plywood
Dimensions (W x H x D):	420 x 763 x 488 mm
Weight:	25 kg
Features:	LD SYSTEMS Evolutive handles, 36mm flange, 13 x M10 flying points, monitor angle (50°), sub out, switchable low cut, power inlet with locking system







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EASE-GLL
available online

1. **LDDDQSUB212B** - WATER-REPELLENT, PADDED PROTECTION BAG
2. **38112G3** OR **38115G3** - CASTOR BOARDS
3. **372081** - 80mm SWIVEL CASTOR
372091 - 80mm SWIVEL CASTOR + BRAKE
372151 - 100mm SWIVEL CASTOR
372191 - 100mm SWIVEL CASTOR + BRAKE

DDQSUB212

2 x 12" BANDPASS PA SUBWOOFER

SPECIFICATIONS

Model name:	LDDDQSUB212
Type:	2 x 12" bandpass subwoofer
Frequency range:	38 – 120 Hz
Power output (RMS):	1400 W
Max. SPL (peak):	132 dB
Amplification:	Class D
Transducer:	2 x 12" neodymium woofer
Connectors:	Input: 2 x XLR / input link : 2 x XLR / Sat out: XLR with 100 Hz high pass
Protection:	RMS power supply limiter, DSP-based „look ahead“ limiter, RMS speaker limiter, over-current, short circuit
Paint / Cabinet material:	Polyurea / 18 mm birch plywood
Dimensions (W x H x D):	420 x 620 x 543 mm
Weight:	34,5 kg
Features:	3 x corner handles, 15 x DSP presets with 4 selectable cardioid setups and 7 selectable crossover frequencies (80-120Hz), 2 x threaded flange (M20), prepared for mounting of casters, power inlet with locking system, power input and output





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EASE-GLL
available online

- 1. **LDDDQSUB18B** - WATER-REPELLENT, PADDED PROTECTION BAG
- 2. **38118G3** - CASTOR BOARD
- 3. **372081** - 80mm SWIVEL CASTOR
- 372091** - 80mm SWIVEL CASTOR + BRAKE
- 372151** - 100mm SWIVEL CASTOR
- 372191** - 100mm SWIVEL CASTOR + BRAKE

DDQSUB18

18" BASS-REFLEX PA SUBWOOFER

SPECIFICATIONS

Model name:	LDDDQSUB18
Type:	18" bass-reflex subwoofer
Frequency range:	30 – 120 Hz
Power output (RMS):	1400 W
Max. SPL (peak):	134 dB
Amplification:	Class D
Transducer:	18" neodymium woofer
Connectors:	Input: 2 x XLR / input link : 2 x XLR / Sat out: XLR with 100Hz high-pass
Protection:	RMS speaker limiter, DSP-based „look ahead“ limiter, RMS power supply limiter, short circuit, over-current
Paint / Cabinet material:	Polyurea / 18mm birch plywood
Dimensions (W x H x D):	510 x 700 x 725 mm
Weight:	44,5 kg
Features:	3 x corner handles, prepared for mounting of casters, 15 x DSP presets with 4 selectable cardioid setups and 7 selectable crossover frequencies (80-120Hz), 2 x threaded flange (M20), power inlet with locking system, power input and output



DDQ SERIES

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LD SYSTEMS is a brand of the ADAM HALL Group

The information contained in this publication, including numerical data, has been prepared as a general guide to the products, but intending buyers and users must satisfy themselves as to the suitability and the safety of the products for their particular purposes and duties. No responsibility is assumed for any errors herein. The company reserves the right to alter the designs and material specifications of products shown in this publication without notice.

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