



**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.“

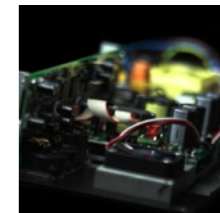
# STATE OF THE ART TECHNOLOGY

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 UCD400 Class D power stage modules providing flat frequency response irrespective of load impedance and 400W RMS each into the driver complement.



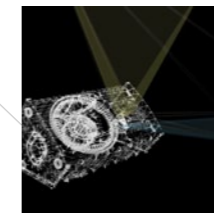
## **FAITAL PRO PR300 NEODYMIUM WOOFER**

Featuring a cast aluminum frame and neodymium magnet slug a Faital Pro PR300 series woofer delivers tightly focused low end punch with excellent transient response.



## **BMS COMPRESSION DRIVER**

The BMS compression driver was chosen for its 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 Evolutive handles for secure portability, each DDQ series powered speaker is "greater than the sum of its parts."



# MAXIMUM PERFORMANCE

## 2X HYPEx UCD400 / 400W AMPLIFIER MODULES

Max SPL (peak): 132dB (DDQ10) 134 dB (DDQ12)

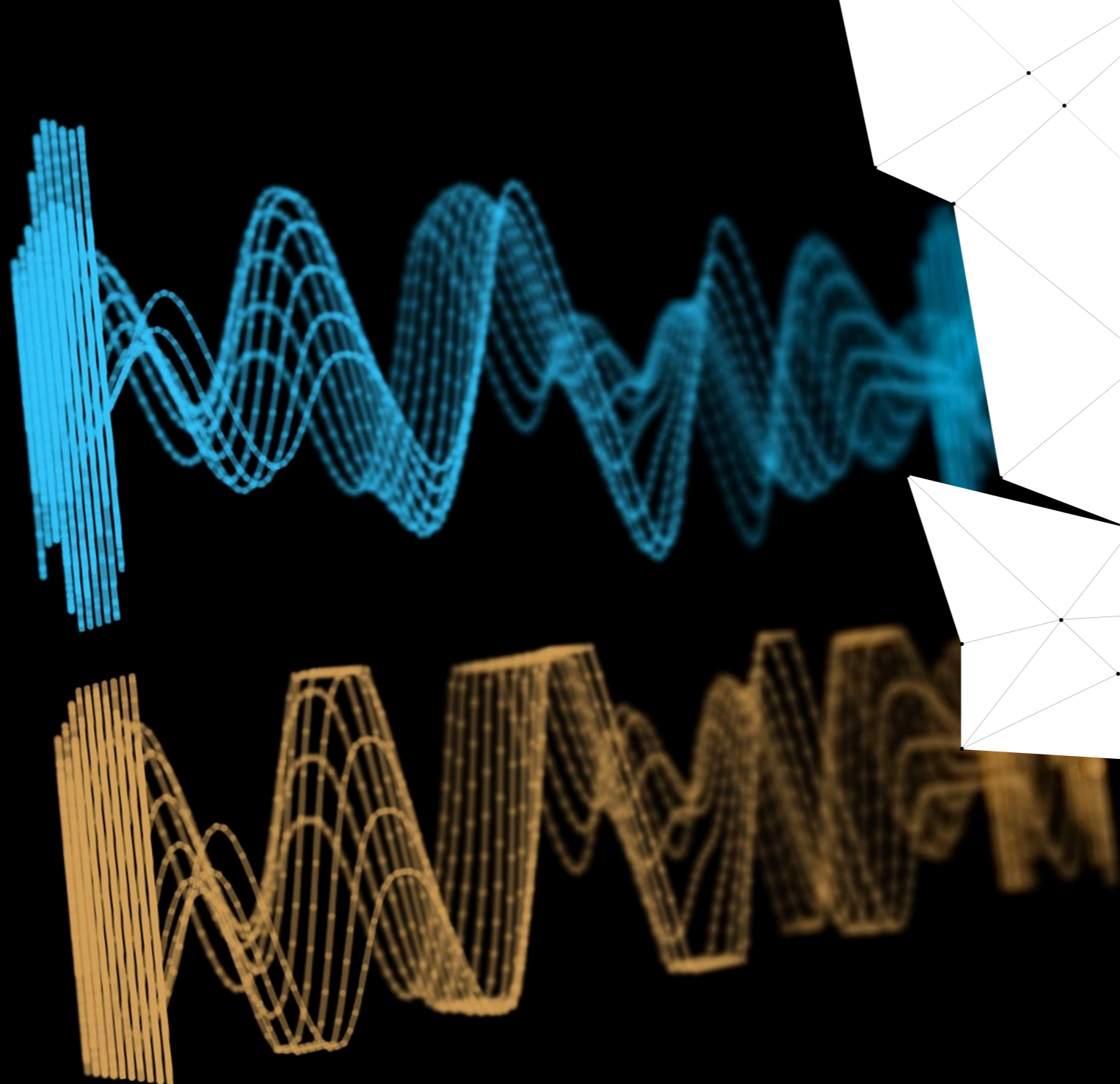
Driven by two Hypex UCD400 power modules DDQ series loudspeakers are high-energy performers. The superior efficiency of the Hypex Class D design accurately and effortlessly translates signal dynamics producing maximum SPLs of 132dB with the DDQ10, and 134dB with the DDQ12 versions. Using no-compromise components and featuring linear frequency response with very low noise and very low frequency-independent THD, Hypex UCD400 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 Faital 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**



# 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 LOUSPEAKER 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 while the DDQ12 weighs in at 17kg. 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.

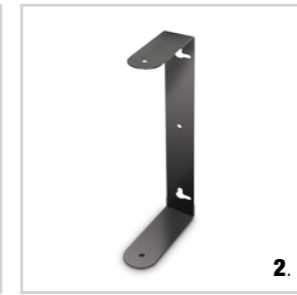


# OUTSTANDING VALUE FOR MONEY

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.





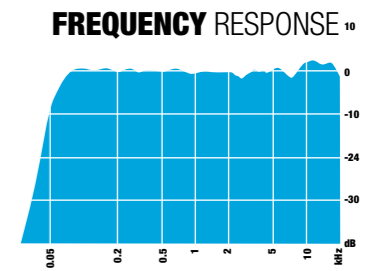
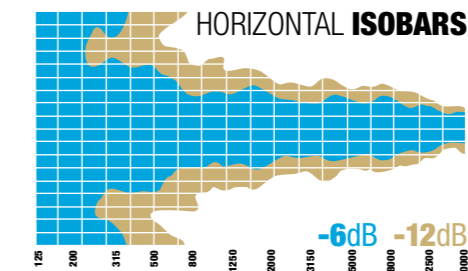
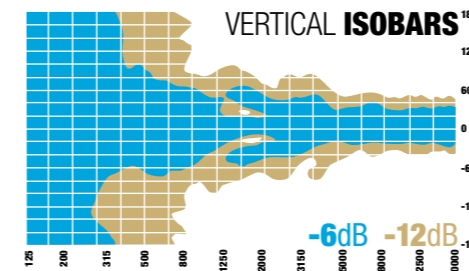
- 1. LDDQ10B - TRANSPORT BAG
- 2. LDDQ10WB - WALL MOUNTING BRACKET
- 3. LDDQ10SB - SWING BRACKET

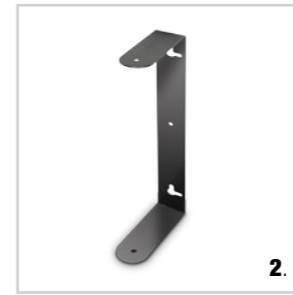
# DDQ10

## 10" POWERED PA SPEAKER WITH DSP

### SPECIFICATIONS

Model name:	LDDQ10
Type:	PA-Speaker DSP controlled
Frequency range:	59 Hz - 20 kHz
Power output (RMS):	2 x 400 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, switchable sub out, low cut





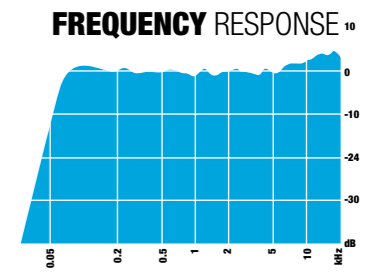
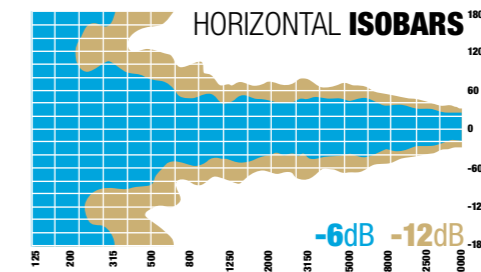
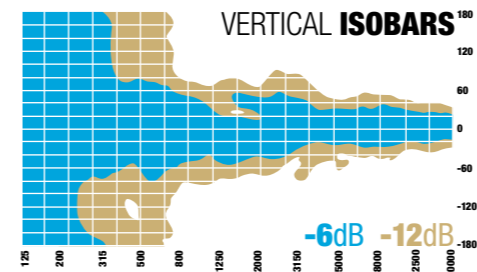
- 1. LDDQ12B - TRANSPORT BAG
- 2. LDDQ12WB - WALL MOUNTING BRACKET
- 3. LDDQ12SB - SWING BRACKET

# DDQ12

## 12" POWERED PA SPEAKER WITH DSP

### SPECIFICATIONS

Model name:	LDDQ12
Type:	PA-Speaker DSP controlled
Frequency range:	54 Hz - 20 kHz
Power output (RMS):	2 x 400 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, switchable sub out, low cut





1. LDDQSUB212B - 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:	LDDQSUB212
Type:	2 x 12" bandpass subwoofer
Frequency range:	38 – 120 Hz
Power output (RMS):	1000 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
Protection:	DSP based "look ahead" limiter, RMS speaker limiter, RMS power supply limiter, over-current, over-voltage
Paint / Cabinet material:	PA painting / 15mm birch plywood
Dimensions (W x H x D):	420 x 620 x 543 mm
Weight:	32,9 kg
Features:	3 x heavy duty corner handles, 2 x M20 threaded flange, prepared for wheels, switchable ground lift, filtered sat output



- 1. LDDQSUB18B** - 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:	LDDQSUB18
Type:	18" bass-reflex subwoofer
Frequency range:	33 – 110 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
Protection:	DSP based "look ahead" limiter, RMS speaker limiter, RMS power supply limiter, over-current, over-voltage
Surface:	PA painting
Paint / Cabinet material:	PA painting / 15mm birch plywood
Dimensions (W x H x D):	510 x 700 x 725 mm
Weight:	39,5 kg
Features:	2 x LD SYSTEMS evolutive handles, M20 threaded flange, prepared for wheels, switchable ground lift, filtered sat output



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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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