

## Uniline Series

### Line Array downfill and mid throw elements

Three acoustic ways  
2 x 10" neodymium (w/2" voice coil)  
6,5"+ 1" neodymium HF drivers, coaxially mounted

### Features

Very wide horizontal coverage  
Progressive vertical index directivity  
Limited weight  
Full acoustical and mechanical compatibility  
with UL210

### Applications

Short and mid throw coverage  
UL210 down fill reinforcement  
Wide venues and listening areas

### Specifications

80 Hz - 19 kHz (wide band mode)  
LO/MID: 800 W AES  
99 dB SPL @ 1W at 1m  
MID/HI: 300 W AES  
108 dB SPL @ 1W at 1m  
Max SPL@ 1m 137 dB  
10.4" x 27.6" x 23" (264 x 700 x 584 mm)

Bi-amplified operation  
Digital processor mandatory

The UL210D Uniline "line array" incorporates 3-way bi-amplified system design. Twin 10" loudspeakers loaded in compression serve Lo/Mid bandwidth between 80 Hz and 450 Hz. Mid/Hi coherency comes from coaxially aligned 6,5" and 1" The mid-range 6,5" speaker displays ultra-low distortion and extends from 450 Hz to 4 KHz. The 1" HF driver operates smoothly from 4 KHz to 19 KHz. The two Neodymium drivers are mounted coaxially and loaded with an ISOTOP10™ waveguide. This assembly consists in an annular horn and iso-phase technology to achieve acoustic impedance adaptation and performance that is comparable to traditional compression drivers, but with greatly increased bandwidth and power handling. Directivity control, compression and transducer phase alignment are all established through the UL210's advanced acoustic horn.

The mechanical rigging system is totally integrated and fully identical to the UL210 speaker. It allows use of Uniline both in flown and stacked installation. Six recessed handles allow UL210 enclosures to be easily handled during transport, rigging and installation.

Use of an APG digital processor is required. The processing and amplification system of UL210 and UL210D are independent.

# UL210D



Uniline downfill speaker UL210D

The UL210D speaker has been first developed as a complement to a UL210 based main line array system. The UL210D are designed to be used as a short and medium throw system of its own, or as downfill speakers of a UL210 based system at the bottom of the cluster, or as front fill if put in front for the stage for large stages.

Thanks to its 105° acoustic horizontal opening with constant directivity, the UL210D enables to cover the near field area without any compromise, even on very large stages.

The UL210D is equipped with the same type of loudspeakers, in order to provide with a perfectly equivalent sound restitution, fully compatible with UL210. The ISOTOP10™ is identical to the UL210 in order to guarantee a continued acoustic line.

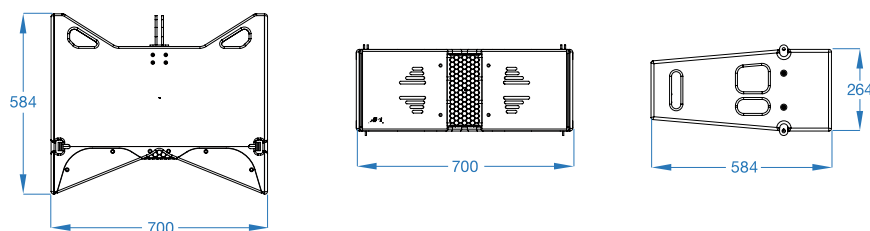
The rigging and transport system of UL210D is identical to UL210. The UL210D is significantly lighter than UL210.

For shorter throw and wider acoustic coverage applications, the UL210D speakers can be used as main system, in large band for vocal applications and combined with UL115B and/or TB subs for musical applications.

# APG

# UL210D

## Technical specifications



### Features

### UL210D

	lo/mid	mid/high
Frequency response, 2 way (1)	80 - 450 Hz	0,45-19 kHz
Frequency response, 3 way (1)	{80 - 120} - 450 Hz	0,45-19 kHz
Frequency response, 4 way (1)	{80 - 120} - 450 Hz	0,45-19 kHz
Efficiency 1W @ 1m	101 dB SPL	105 dB SPL
Max level @ 1m	124 dB SPL	129 dB SPL
Peak level dB SPL @ 1m	133 dB SPL	
Directivity, angles to -6 dB (2)	105 °H	105 °H x 10 °V
Nominal Impedance	8 Ohm	16 Ohm

### Enclosure Components

Transducers	2 x 10"	1x6.5"/1xHF1" coaxially mounted
Coil diameters of	50 mm	50 mm (2") & 45 mm (1.75")
Type of load	Bass Reflex	Isotop™ driver and horn

### Power Requirements

Recommended amplifiers (3)	500 to 1000 W	300 to 600 W
Peak	1500 W	900 W
AES (4)	500 W	300 W

### Construction and characteristics

Multiple Enclosures	15 mm birch
Coating	Black aquarethane, impact-resistant finish
Front finish	2 mm, acoustically transparent, perforated grill
Connectors	2 x Speakon NL4MP (5)
Handles	6 x internally recessed hand-holds
Rigging System	Captive 3-point steel
Dimensions (H, L, W)	10.4" x 27.6" x 23" (264 x 700 x 584 mm)
Net weight per enclosure	74 lb (34 kg)

### Options et Accessories

FCUL210DV2	Flight case for 2 x UL210D enclosures in vertical
ULTRUSS	Truss versatile lifting and use raised
FC2ULTRUSS	Flight case for 2 x ULTRUSS

### Signal Processing

The dedicated APG processors allow combination of different types of subwoofers with top speakers. These processors provide with active crossover, EQ, speakers protection, standard filtering functions for a stereo system including subwoofers. For digital processors, APG provides an exhausted bank of presets of system configuration allowing creative, quick and secure deployment and offering a high level of stock modularity and compatibility.

(1) In standalone mode, the UL210D low frequency cut-off is approximately 65 Hz but it depends on the number speaker of clusters. In extended mode and in complete mode the frequency crossover is adjustable between 80 Hz and 110 Hz depending on the configuration of the system.

(2) The 105° horizontal directivity is constant from 350 Hz up to high frequencies. In the vertical plane, the index directivity increases (and the acoustic opening decreases) progressively when the frequency grows. By consequence, the vertical coupling is non-interferential up to the high bandwidth. However we can define a 10° average value for the vertical acoustic opening.

(3) In order to take full benefit of the dynamic performance, sonic quality and reliability of the speakers, the recommended amplification must at least correspond to the AES rating. Lesser amplification is acceptable for applications requiring less power (near-field, distributed systems, etc.), whilst not being less than half the AES rating.

(4) The AES power handling corresponds to a 2 hour test using weighted pink noise (peak factor of 6dB) through a frequency range of one decade.

(5) The 4 pins SPEAKON connectors are wired 1+, 1- for back input connectors.

**5 YEARS WARRANTY** \*A five years warranty covers passive filters, transducers and compression drivers. The warranty does not cover cosmetic damages and damages due to misuse, improper installation, or damages caused by alterations.

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APG has a policy of research and development aimed at improving its products. As such, new materials, manufacturing methods and changes in principle can be introduced without prior warning. As a result, an APG product may differ in some aspects to its published description. However, unless otherwise indicated, measurements and features will only exceed previously published data...