



# X8Sub Active Extend Woofer



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# SAFETY INSTRUCTIONS

## **1. Read this document**

## **2. Pay attention to all safety instructions and hazards and obligatory warnings**

## **3. Do not use equipment or accessories that are not approved by QANON AUDIO.**

## **4. Attention to Sound Level**

Do not approach the speaker when operating, and consider wearing earplugs.

Speaker system can produce very high sound pressure level (SPL), which can be instantaneous.

It results in permanent hearing impairment to performers, producers and audiences.

Listening can take place for a long time:

8 hours 90 decibels (A-weighted), 30 minutes 110 decibels (A-weighted), less than 4 minutes 130 decibels (A-weighted).

## **5. Read the manual before operating the product.**

Use speaker system components described in user manual and follow instructions

## **6. Read the rigging manual before installing the product.**

Use the hanging accessories described in the installation manual and follow the relevant procedures.

## **7. Before repairing the product, please read the "Maintenance" section of this document.**

## **8. Do not expose products to extreme conditions**

Do not expose the product to rain or waves.

Do not expose the product to humidity (fog, steam, humidity, cooling, etc.) or overheating (direct sunlight, radiator...) For a long time

## **9. Do not store products on unstable carts, brackets, tripods, brackets or tables.**

## **10. Maintain this document as an integral part of the product**

Put this document in a safe place.

Record any services of the product in the maintenance section of this document

Do not resell products without this update document

Thank you for purchasing QANON AUDIO #X8Sub Active. The container shall contain - 1 #X8Sub Active enclosure. Each QANON AUDIO #product has been tested and inspected before it leaves the factory and should arrive intact. Carefully open the container and check for any apparent damage. If so, inform the transport company or distributor immediately. Only the consignee can claim against the carrier for damage in transit. Cartons and packing materials must be kept for inspection by carriers. Read this document carefully to familiarize yourself with the product and identify external documents that contain basic information on correct and safe installation and operation of the product. All the documents described below can be accessed free of charge on the QANON AUDIO < website ([www.qanon-audio.com](http://www.qanon-audio.com)).

As part of the continuous development of technology and standards, QANON AUDIO reserves the following rights:

**Change product specifications and document contents without prior notice. Please visit the QANON AUDIO website regularly to download the latest updates of documents and software.**

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# X8Sub Active Extend Woofer

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- Maximum SPL 134dB
- 1 x 15" Neodymium LF driver unit
- 360° horizontal
- Adjust angle with (X8)0°, -2°, -4°, -6°
- Rigging or ground stacking integrated assembly system
- Low frequency limit extends to 36Hz
- Add X8 Line Source
- Add Xiv18 / Xiv28 subwoofer system
- C15/VDA/H Series amplifier controller
- 20A PowerCON

## X8Sub High Power Extended Low Frequency Loudspeaker

X8Sub is a recommended subwoofer for X8 line arrays and other QANON AUDIO < products. It adds to the sub-low frequency of the system by enhancing the throwing ability of the low frequency. It allows the operating frequency range of the system to be extended to 36Hz.

The X8Sub extend woofer is internally loaded with a 15-inch speaker. It has powerful impact, sensitivity and low frequency performance, and its internal four corners have a triangular vent progressive shape that allows laminar airflow and reduced turbulence noise. These combined features help to improve the level of operation.

The X8Sub enclosure is made of Baltic birch plywood to ensure maximum acoustic and mechanical integrity.

The X8Sub extend woofer can be used as an independent array or fly at the top of a vertical array composed of X8 line arrays. X8Sub is driven and amplified by C15 or H series /VDA power controller. Protect and optimize different configurations of loudspeaker systems, including cardioid

Dimensions: width:430 mm, height: 560 mm, depth:600 mm ,  
weight:35kg (79.3lbs)

The enclosure shall be fitted with internal hardware and connected XLR INPUT / OUTPUT, 20A PowerCON INPUT / OUTPUT



## X8Sub Technical Specification

### X8Sub Active Technical Specification

Type	Active Extend woofer
Frequency Response(Preset)	36Hz-300Hz(-10dB)
Horizontal	360°
Angle Increments(X8)	0° -2° -4° -6°
Angle Increments(X8)	0° +2° 4° +6°
Drivers	LF:1×15" Neodymium
Handling Power (AES)	LF:1200W
Maximum Peak SPL	134dB/1m
Nominal Impedance	LF:8Ω
Connections	2 x NL4 SpeakOn
Pin Connections	NL4=LF: +1-1
Height Front	560mm
Height Back	560mm
Width	430mm
Depth	600mm
Weight	35kg / 79.3lb

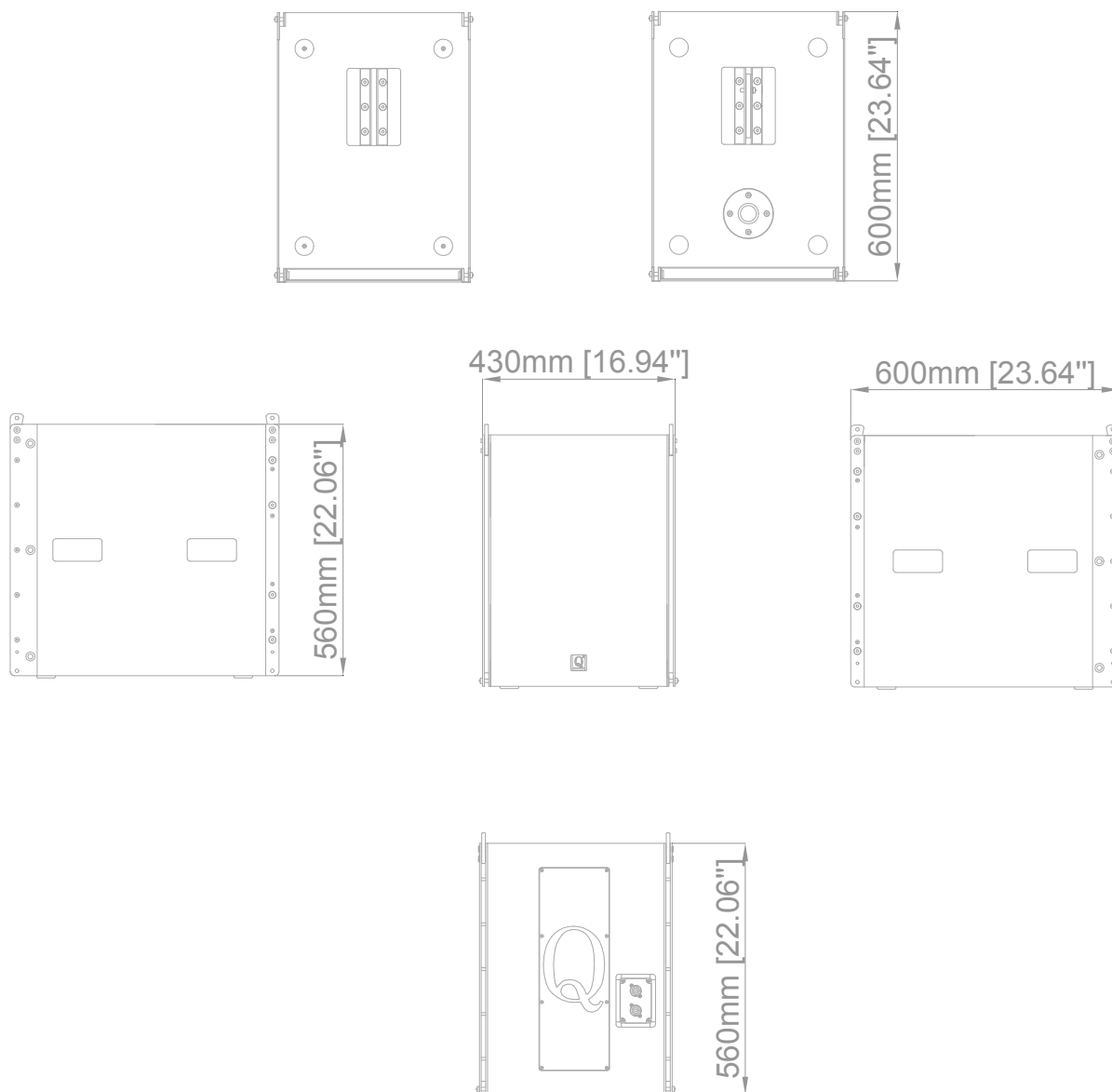
### Rigging and Handling

Handle	4 ergonomic handles
Pole socket	1x 35mm Pole socket
Fastener	5 side fastener

### Physical Data

Material	Baltic Birch Plywood
Finish	Black
Front	Polyester powder-coated steel grill
Rigging	Steel
Protection rating	IP45

## Dimensions CAD





## X8Sub Active Module Introduction

The power amplifier module 3004PFC4 has 4 output channels, which is designed for multi frequency division speaker and asymmetrical load application. The super compact design integrates four channels and power supply in one box, making 3004PFC4 a very unique product. Due to its 6-layer circuit board, dm3004PFC can bring amazing acoustic performance. The new power supply design has power factor correction (PFC) and intelligent rail management technology (SRM), and the performance reaches a new height. 3004PFC4 can be selected or compatible with DSP solutions in the existing market. It is the most advanced platform of the three frequency division system.



## X8Sub Active Module Features

- Power factor correction (PFC): universal operation, error proof connection with main voltage (tolerance up to 400VAC)
- Smart rail management (SRM): reduce heat consumption and improve performance
- General purpose power supply with high efficiency / low power consumption
- Fixed frequency switch mode output stage for maximum fidelity
- Optional DSP board
- High performance digital audio routing and control palette based on Ethernet
- For maximum compact design. It can also be equipped with independent power supply and amplification stage to simplify mechanical integration operation.
- Bypass line output for external active / passive filters
- Comprehensive intelligent protection features: overheating, overcurrent and no audio signal protection
- Overheat protection (power limiting - overheat off)
- Short circuit / overload output protection
- Clipping limiter
- High frequency protection
- Auxiliary output voltage ( $\pm 12V$  stabilized voltage, 500mA maximum)
- Mute command
- Temperature controlled internal fan and output

### AC Main Power

Channel	4-Channel	
Output maximum power (stereo)	8 $\Omega$	4 $\Omega$
	1000 W	2000 W
Output maximum power (bridge)	16 $\Omega$	8 $\Omega$
	2000 W	3000 W
Maximum output voltage / current	150V Peak / 54A Peak	216V Peak
Power	General switching power supply with power factor correction (PFC)	
Rated power	100-240 V $\pm 10\%$ , 50-60 Hz	
Voltage	90 V - 264 V	
Temperature range	0° - 45° C - 32° - 113° F	

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## X8Sub Module Technical Specification

### AUDIO

Gain	32dB	38dB
Input sensitivity	1.6V / 6dBu	1.3V / 4.5dBu
Frequency response	20 Hz - 20 kHz ( $\pm 0.5$ dB) @ 1 W, 8 $\Omega$	
Noise ratio	> 112 dB (20 Hz - 20 kHz, A weighted)	
Crosstalk	> 70 dB @ 1kHz	
THD+N	< 0.05% from 1 W to full power (typically < 0.01%)	
IMD	< 0.02% from 1 W to full power (typically < 0.005%)	
Input Impedance	10 k $\Omega$ balanced	
Slew Rate	50 V/ $\mu$ s @ 8 $\Omega$ , input filter bypassed	
Damping Factor	> 500 @ 100 Hz	

### DSP

DSP Channel	2 in/3 out
DSP Framework	Analog device sigma DSP®50 MIPS internal
AD/DA Converter	AKM 24 bit @ 48 kHz
AD/DA Dynamic range	2 IN 115 dB (A weighted), OUT 3 102 dB (A weighted)
User data Preset	Up to 4 local presets, unlimited access
Data processing	28bit data path, 56bit internal processing delay, 1.02ms fixed delay architecture
Frequency response	20 Hz - 20 kHz ( $-0.5$ dB)
Maximum input voltage	8.2 V / +20 dBu
Maximum output voltage	4.1 V / +14.3 dBu
S/N ratio (analog-to-analog)	> 113 dB
THD+N	< 0.02% (20 Hz - 20 kHz)
Delay	340ms input delay, 10ms output delay per channel
Input equalizer	5-Band equalizer: Peak , High/Low Shelf, All pass, Band pass, high / High/Low Pass
Output equalizer	IIR Filter: Peak , High/Low Shelf, All pass, Band pass, high / High/Low Pass
Crossover Filter	Butterworth, Linkwitz-Riley, Bessel, 6dB/oct to 48dB/oct
Limiter	Peak Limiter, RMS Limiter, frequency offset Limiter, Clip Limiter, Temperature Limiter
Port	RS485



## H Series Maximum number of enclosures per Amp

Enclosure	Max enclosure in parallel	Max enclosure per controller
X8	4	4
X10	4	4
X12	4	4
X8Sub	2	4
X10Sub	2	4
X12Sub	2	4
Xiv18	2	4
Xiv28	1	2

## C Series Maximum number of enclosures per Amp

Enclosure	Max enclosure in parallel	Max enclosure per controller
X8	4	8
X10	4	8
X12	4	8
X8Sub	2	8
X10Sub	2	8
X12Sub	2	8
Xiv18	2	8
Xiv28	1	4

Enclosure	1	2	3	4
X8	LF:16 $\Omega$ / HF:16 $\Omega$	LF:8 $\Omega$ / HF:8 $\Omega$	LF:5.3 $\Omega$ / HF 5.3 $\Omega$	LF:4 $\Omega$ / HF:4 $\Omega$
X10	LF:16 $\Omega$ / HF:16 $\Omega$	LF:8 $\Omega$ / HF:8 $\Omega$	LF:5.3 $\Omega$ / HF 5.3 $\Omega$	LF:4 $\Omega$ / HF:4 $\Omega$
X12	LF:16 $\Omega$ / HF:16 $\Omega$	LF:8 $\Omega$ / HF:8 $\Omega$	LF:5.3 $\Omega$ / HF 5.3 $\Omega$	LF:4 $\Omega$ / HF:4 $\Omega$
X8Sub	LF:8 $\Omega$	LF:4 $\Omega$	None	None
X10Sub	LF:8 $\Omega$	LF:4 $\Omega$	None	None
X12Sub	LF:8 $\Omega$	LF:4 $\Omega$	None	None
Xiv18	LF:8 $\Omega$	LF:4 $\Omega$	None	None
Xiv28	LF:4 $\Omega$	LF:2 $\Omega$	None	None

NL4 4-Pin 4*4 <sup>2</sup>	X8 / X10 / X12	
Transducer connectors	LF = +1-1 HF = +2-2	
NL4 4-Pin 2*4 <sup>2</sup>	X8Sub / X10Sub / X12Sub	
Transducer connectors	LF = +1-1	
NL4 4-Pin 2*4 <sup>2</sup>	Xiv18 / Xiv28	
Transducer connectors	LF = +1-1	

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## TRANSPORTATION ACCESSORIES

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### **X8Sub-Touring case:**

removable front case on wheels (one X8Sub)



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### **Rigging Frame Accessories**

**X8 / X8Sub-U Shackle (3' 5/8) 4t**



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### **Rigging Frame with Extender Beam**

**X8 / X8Sub-Bump**



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### **Speaker Cable**

**X8 4Pin NL4 4 x 4 mm<sup>2</sup> (50cm)**

**X8 4Pin NL4 4 x 4 mm<sup>2</sup> (2m)**

**X8 4Pin NL4 4 x 4 mm<sup>2</sup> (15m)**

**X8Sub 2Pin NL4 2 x 4 mm<sup>2</sup> (50cm)**

**X8Sub 2Pin NL4 2 x 4 mm<sup>2</sup> (15m)**





## D Series Processor Recommend

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D36



D48

## H Series Controller Recommend

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X8



**H-600**  
2x600w 8ohm

X8Sub/Active



**H-1200**  
2x1200w 8ohm

Xiv18



**H-1200**  
2x1200w 8ohm

Xiv28



**H-1800**  
2x1800w 8ohm

## Associated Enclosures

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X10



X10 Sub/Active



Xiv18



Xiv28

