X10Sub Active Extend Woofer

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 #X10Sub Active. The container shall contain - 1 #X10Sub 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).

As part of the continuous development of technology and standards, QANON AUDIO reserves the following rights:
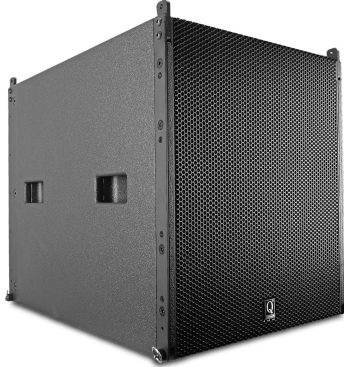
Change product specifications and document contents without prior notice. Please visit the QANON AUDIO website regularly to download the latest updates of documents and software.

X10Sub **Active Extend Woofer**

- Maximum SPL 137dB
- 1 x 18" Neodymium LF driver unit
- 360° horizontal
- Adjust angle with (X10)0°，-2°，-4°，-6°
- Rigging or ground stacking integrated assembly system
- Low frequency limit extends to 30Hz
- Add X10 Line Source
- Add Xiv18 / Xiv28 subwoofer system
- C15/VDA/H Series amplifier controller
- 20A PowerCON

X10Sub High Power Extended Low Frequency Loudspeaker

X10Sub is a recommended subwoofer for X10 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 30Hz.

The X10Sub extend woofer is internally loaded with a 18-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 X10Sub enclosure is made of Baltic birch plywood to ensure maximum acoustic and mechanical integrity.

The X10Sub extend woofer can be used as an independent array or fly at the top of a vertical array composed of X10 line arrays.X10Sub is driven and amplified by C15 or H series /VDA power controller. Protect and optimize different configurations of loudspeaker systems, including cardioid

Dimensions: width:500 mm, height: 560 mm, depth:700 mm ,
weight:45kg (99.2lbs)
The enclosure shall be fitted with internal hardware and connected XLR INPUT / OUTPUT,20A PowerCON
INPUT / OUTPUT

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X10Sub Technical Specification

X10Sub Active Technical Specification	
Type	Active Extend woofer
Frequency Response(Preset)	30Hz-300Hz(-10dB)
Horizontal	360°
Angle Increments(X10)	0° -2° -4° -6°
Angle Increments(X10)	0° +2° +4° +6°
Drivers	LF:1×18" Neodymium
Handling Power (AES)	LF:1200W
Maximum Peak SPL	137dB/1m
Nominal Impedance	LF:8Ω
Connections	2 x NL4 SpeakOn
Pin Connections	NL4=LF:+1-1
Height Front	560mm
Height Back	560mm
Width	500mm
Depth	700mm
Weight	45kg / 99.2lb
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

700mm [27.58"]

500mm [19.7"]

560mm [22.06"]

700mm [27.58"]
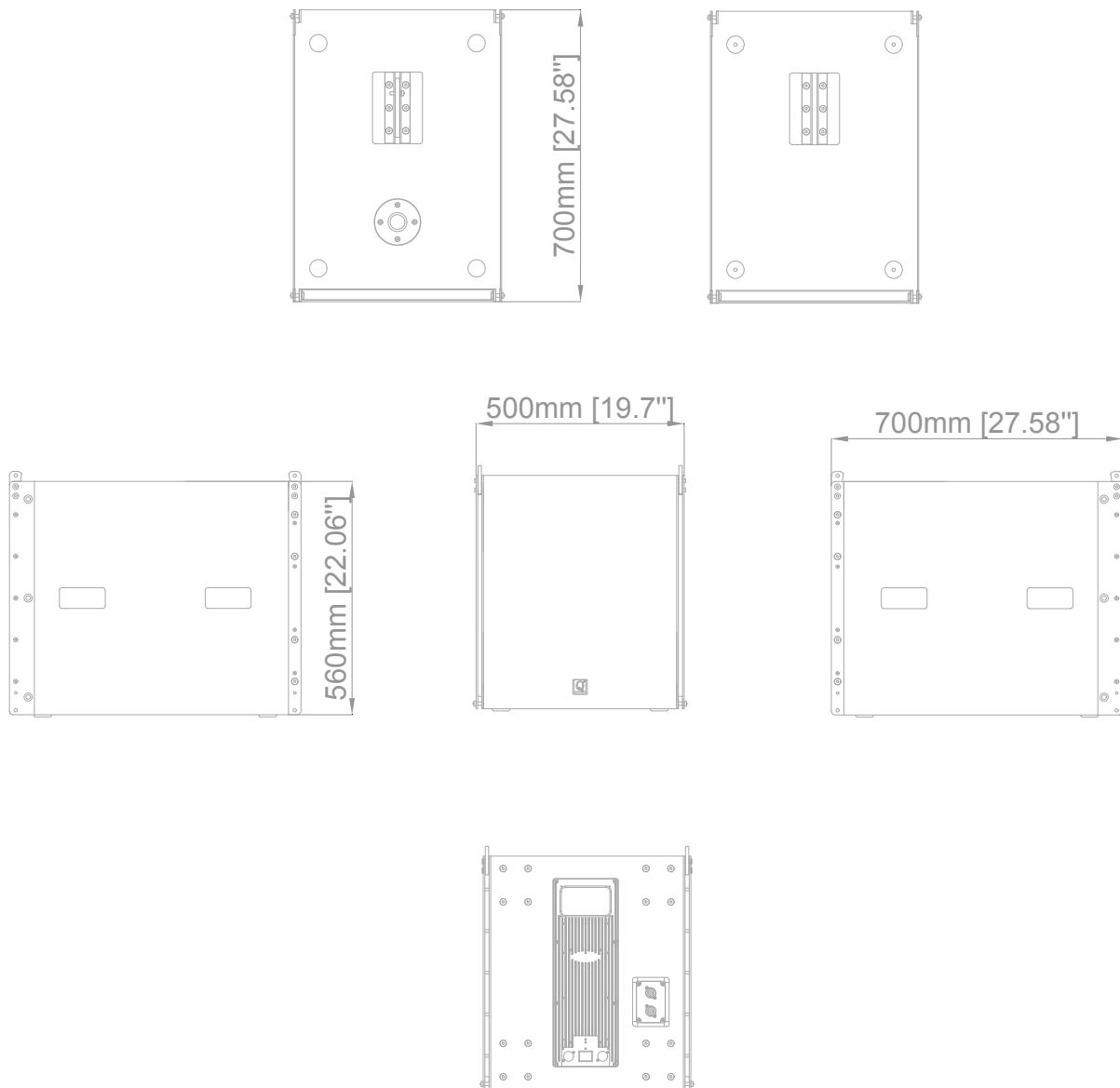
X10Sub Active Module Introduction

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.

X10Sub 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 (± 12V stabilized voltage, 500mA maximum)

·Mute command

·Temperature controlled internal fan and output

AC Main Power

Channel	4-Channel	
Output maximum power (stereo)	8 Ω	4 Ω
	1000 W	2000 W
Output maximum power (bridge)	16 Ω	8Ω
	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 ±10%, 50-60 Hz	
Voltage	90 V - 264 V	
Temperature range	0° - 45° C - 32° - 113° F	

X10Sub Module Technical Specification

AUDIO

Gain	32dB	38dB
Input sensitivity	1.6V / 6dBu	1.3V / 4.5dBu
Frequency response	20 Hz - 20 kHz (±0.5 dB) @ 1 W, 8 Ω	
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 kΩ balanced	
Slew Rate	50 V/μs @ 8Ω, 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 Ω / HF:16 Ω	LF:8 Ω / HF:8 Ω	LF:5.3 Ω / HF 5.3 Ω	LF:4Ω / HF:4 Ω
X10	LF:16 Ω / HF:16 Ω	LF:8 Ω / HF:8 Ω	LF:5.3 Ω / HF 5.3 Ω	LF:4Ω / HF:4 Ω
X12	LF:16 Ω / HF:16 Ω	LF:8 Ω / HF:8 Ω	LF:5.3 Ω / HF 5.3 Ω	LF:4Ω / HF:4 Ω
X8Sub	LF:8 Ω	LF:4 Ω	None	None
X10Sub	LF:8 Ω	LF:4Ω	None	None
X12Sub	LF:8 Ω	LF:4Ω	None	None
Xiv18	LF:8 Ω	LF:4Ω	None	None
Xiv28	LF:4 Ω	LF:2Ω	None	None

NL4 4-Pin 4*4²	X8 / X10 / X12	
Transducer connectors	LF = +1-1 HF = +2-2	
NL4 4-Pin 2*4²	X8Sub / X10Sub / X12Sub	
Transducer connectors	LF = +1-1	
NL4 4-Pin 2*4²	Xiv18 / Xiv28	
Transducer connectors	LF = +1-1	

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TRANSPORTATION ACCESSORIES

X10Sub-Touring case:

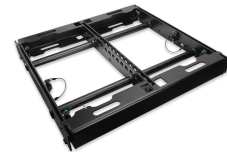**removable front case on wheels (one X10Sub)**

Rigging Frame Accessories

X10 / X10Sub-U Shackle（3' 5/8） 4t

Rigging Frame with Extender Beam

X10 / X10Sub-Bump

Speaker Cable

X10　4Pin　NL4　4 x 4 mm²　（50cm）

X10　4Pin　NL4　4 x 4 mm²　（2m）

X10　4Pin　NL4　4 x 4 mm²　（15m）

X10Sub　2Pin　NL4　2 x 4 mm²　（50cm）

X10Sub　2Pin　NL4　2 x 4 mm²　（15m

D Series Processor Recommend

D36

D48

H Series Controller Recommend

X10	X10Sub/Active	Xiv18	Xiv28
H-800 **2x800w 8ohm**	**H-1200** **2x1200w 8ohm**	**H-1200** **2x1200w 8ohm**	**H-1800** **2x1800w 8ohm**

Associated Enclosures

X8	X8 Sub/Active	Xiv18	Xiv28