⟳ Specification

Model name	cocktailAudio X45		Remarks
Host CPU & Memory	CPU: Dual Core ARM Cortex A9 running at 1.0GHz		
	Main Memory: DDR-1066 1GByte		
	NAND Flash 8GByte		
CD Player	Type	Front Loading	
	Supported media	CD, CD-DA, CD-R, CD-RW, DVD-R/RW	
Display	7.0" TFT LCD(1,024 x 600pixels)(* able to connect to ext. screen via HDMI out)		
Interface	Key & Jog(Volume/Scroll), IR Remote Control, Customized Remote App for iOS and Android devices, Web Interface		
Analog Out (Sabre32 ES9018K2M Dual DAC)	Balanced (PRE-OUT)	XLR, Dynamic Range: 130dB (Max 4.5Vrms, Stereo) THD +N: 0.0004%	
	Unbalanced (PRE-OUT)	RCA, Dynamic Range: 130dB (Max 2Vrms, Stereo) THD +N: 0.0004%	
	Headphone Out	6.35mm Jack, 100mW+100mW@1Khz, 600ohm, 0.1% THD	
Digital out (Variable/Fixed)	COAXIAL x 1	S/PDIF 75ohm RCA, Sample rate: up to 24bit/192KHz	
	TOSLINK x 1	S/PDIF, Sample rate: up to 24bit/192KHz	
	AES/EBU/XRL x 1	110ohm, Sample rate: up to 24bit/192KHz	
	USB Audio x 1	USB Audio Class 2.0 Output	
	HDMI Out x 1	HDMI Audio Out(*Shared with HDMI Out for external screen)	
Analog Input	LINE In x 1	L&R RCA at the rear, default 2Vrms(controllable 1~4Vrms)	
	Aux In x 1	3.5mm Phone Jack on the front, default 1Vrms(controllable 0.5~2Vrms)	
	Phono In x 1	MM Input, default 7.5mVrms(controllable 3.75~15mVrms)	
Digital Input	COAXIAL x 1	Sample Rate: up to 24bit/192Khz	
	TOSLINK x 1	Sample Rate: up to 24bit/192Khz	
	AES/EBU XLR x 1	Sample Rate: up to 24bit/192Khz	
USB Audio Input (USB DAC)	USB B type connector, USB Audio Class 2.0 input (support up to PCM 384Khz/32Bit, DSD Native 256, and MQA file)		
Supported Storage	Hard Disk	2.5" SATA, up to 2TB	* Bigger capacity of storage will be supported by firmware update when available in the market
		3.5" SATA, up to 8TB	
	SSD	2.5" SATA, up to 2TB	
TUNER	DAB+/FM Radio	Selectable for DAB/DAB+ or FM Radio	
Connectivity	USB Host	USB3.0(5V/1A) x 2 at rear USB2.0(5V/1A) x 1 at front	
	Network	Wired	Giga Fast Ethernet(10/100/1000Mbs)	
		Wireless(Option)	※ 802.11b/g/n WiFi USB dongle(Option)	
	HDMI Out	Connect to external screen(* Shared with HDMI Audio Out)	
Codec & Format supported	MQA, PCM 384Khz/32Bit, DSD(DSD64, DSD128, DSD256), DXD(24Bit/352.8KHz), HD WAV(24Bit/192KHz), HD FLAC(24Bit/192KHz), APE/CUE, WAV, FLAC, ALAC, AIFF, AIF, AAC, M4A, MP3, WMA, CAF, Ogg Vorbis, PCM, M3U, PLS, etc		
Network Protocols Supported	UPnP(DLNA) Server/Client/Media Renderer, Samba Server/Client, FTP Server, Web Server, etc		
Internet Services	Internet Radio	Airable	
	Online Music Services	TIDAL, TIDAL MQA, Deezer, Qobuz, Napster, Spotify Connect	
Supported OSD languages	English, German, French, Spanish, Italian, Polish, Dutch, Russian, Traditional Chinese, Korean, Japanese (To be added by request)		
Isolated Power management	Toroidal Transformer	For audio signal management	
	70W internal SMPS	For digital CPU management	
12V Trigger Out	Max 200mA, 12V		
Power Source	220V area	AC 220V - 240V, 50/60Hz	
	110V area	AC 110V - 120V, 50/60Hz	
Mechanical	Material	Front	13mm thickness aluminum by CNC cutting	
		Knob	Aluminum by CNC cutting	
		Body	Metal	
	Dimension	Without foot	441mm(W) x 330mm(D) x 100mm(H)	
		With foot	441mm(W) x 330mm(D) x 111mm(H)	
Certificate	CE, FCC, EMI, etc		

※ Specification to be changed without notification

Feel Wonderful Sound Delivered by

Dual Sabre32 Reference DAC

cocktail **Audio** X45

P o w e r e d   b y   N O V A T R O N

NOVATRON

cocktail **Audio** X45

gracenote · roon ready · TIDAL · DEEZER · airable TUNEIN · Spotify · napster

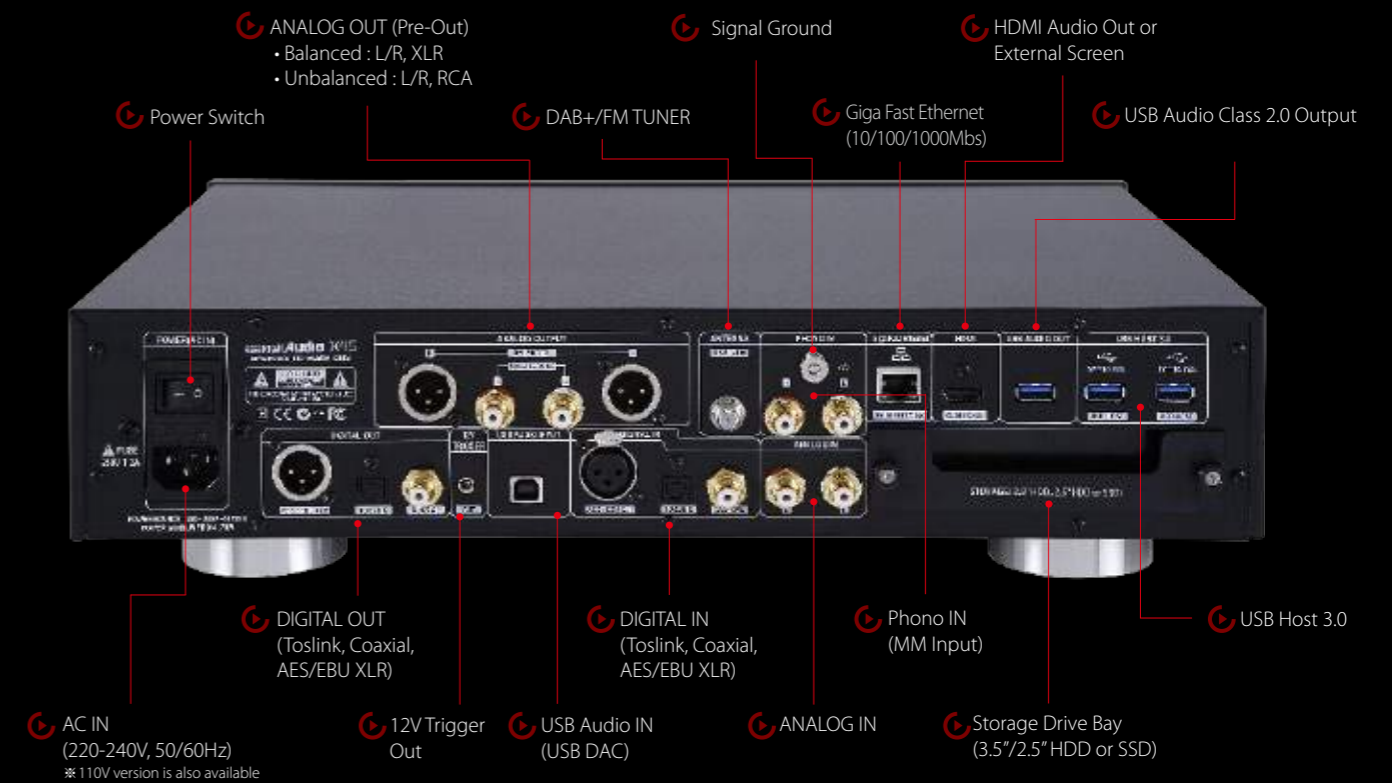## ⏻ Features of Hardware and Engineering

- Equipped with high-performance Dual Core ARM Cortex A9 processor running at 1.0Ghz
- Dual ESS ES9018K2M Sabre^{32} Reference DAC chips built-in separately for right and left channels
- 16 Core Microcontroller with Advanced RISC Architecture for high performance USB DAC function
- USB Audio Class 2.0 Output built-in to connect an external USB DAC
- Isolated power source circuit design for digital and analogue parts
- Toroidal transformer to minimize idle noise
- High speed optical disk drive for quick CD ripping
- Phono Input(Moving Magnet) for turntable
- 7 inch TFT LCD(1024 x 600 pixels) screen for intuitive GUI
- DAB+/FM Tuner built-in
- Giga Fast Ethernet(10/100/1000Mbps) built-in
- Support up to 8TB(Tera Bytes) storage like 3.5"/2.5" hard disk or SSD
- Rugged chassis contruction with 13mm thickness aluminum front and knobs with CNC cutting
- HDMI Out connector for an external screen like TV as its GUI screen or audio signal out

⏻ Versatile Software functionalities and usage

- Support various file formats like MQA, DSD(64/128/256), DXD(24Bit/352.8Khz), PCM singal up to 32Bit/384Khz including 24Bit/192Khz WAV/FLAC and full range hi-res audio file formats
- Breathtaking sound quality delivered by Dual ES9018K2M Sabre^{32} Reference DAC
- CD Ripping with professional CD metadata and album cover art provided by Gracenote
- Connect turntable and play LP directly to record it via Phono Input(Moving Magnet)
- Load your vinyl and cassette tape collections, DAB+/FM radio, Internet radio to X45 MusicDB via recording function with hi-res sampling rate 192Khz
- Play hi-res files(like MQA, DSD, etc) in your PC directly through X45 via its far advanced USB DAC function
- High Connectivity
- Versatile network functions
- Major Music Streaming Services(TIDAL, TIDAL MQA, Deezer, Qobuz, Napster) and Internet Radio(Airable) available
- Customized Remote Control App, NOVATRON MusicX for iOS and Android
- Provides customized WebInterface(WebUI) for remote control and MusicDB management by PC
- Support 'Roon Ready', which is the famous Music Player for Music Lovers

What is the cocktail Audio X45

The X45 is a World-Class High-resolution Audio Player and DAC, which is featured by Dual Sabre^{32} Reference DAC chips built-in, CD Ripper, Music Server, Network Streamer, Music Recorder, and much more

⏻ ANALOG OUT (Pre-Out)
  • Balanced : L/R, XLR
  • Unbalanced : L/R, RCA

⏻ Signal Ground

⏻ HDMI Audio Out or External Screen

⏻ Power Switch

⏻ DAB+/FM TUNER

⏻ Giga Fast Ethernet (10/100/1000Mbs)

⏻ USB Audio Class 2.0 Output

⏻ DIGITAL OUT (Toslink, Coaxial, AES/EBU XLR)

⏻ DIGITAL IN (Toslink, Coaxial, AES/EBU XLR)

⏻ Phono IN (MM Input)

⏻ USB Host 3.0

⏻ AC IN (220-240V, 50/60Hz)
※ 110V version is also available

⏻ 12V Trigger Out

⏻ USB Audio IN (USB DAC)

⏻ ANALOG IN

⏻ Storage Drive Bay (3.5"/2.5" HDD or SSD)

MQA DSD Direct Stream Digital DXD Digital eXtream Definition HD music 32Bit/384Khz HD music 24Bit/192Khz

DSD | DXD | PCM | flac | HD FLAC (24bit/192KHz)
AAC | WAV | WMA | M4A | HD WAV (24bit/192KHz)
MP3 AUDIO | Ogg | M3U | PLS | MP3 | APE/CUE
CAF | ALAC | AIFF | AIF | HD MUSIC 32Bit/384Khz High Resolution Audio

High Performance System Resources and custom-designed software

Based on Dual Core ARM Cortex A9 processor running at 1.0GHz, 64Bit/1000MIPS Microcontroller and custom-designed software, the X45 will surely satisfy all music lovers with great performance and versatile features

Breathtaking Sound Quality created by accumulated circuit design technology and qualified components

Equipped with dual ESS Sabre^{32} Reference DAC ES9018K2M built-in separately for right and left channels, 64Bit XMOS chip, TCXO oscillator and high quality Toroidal Transformer including isolated power source circuit design technology and in-house R&D know-how for circuit designing, the X45 will deliver wonderful sound to you

Dual Sabre^{32} Reference DAC separated for right and left channels

You can experience breathtaking sound quality delivered by dual Sabre^{32} ES9018K2M DAC built-in separately for right and left channels

XMOS 64Bit/1000MIPS 16 Core Powerful Microcontroller

X45 USB DAC function can support up to PCM 384Khz/32Bit, DSD Native 256 and MQA

USB Digital - to - Analogue Converter(DAC)

USB AUDIO INPUT

Toroidal Transformer

Isolated power source circuit design for digital and analogue parts minimizes idle noise

High quality Analog Out terminal

High quality with well-shielded analogue out terminal guarantees lossless signal transmission

Balanced & Unbalanced Analogue Out

• Balanced XLR: Dynamic Range: 130dB(Max 4.5Vrms, stereo) THD +N: 0.0004%
• Unbalanced RCA: Dynamic Range: 130dB(Max 2Vrms, stereo) THD +N: 0.0004%

USB Audio Class 2.0 Output

USB AUDIO OUT

An external USB DAC can be connected

Phono In(Moving Magnet) for a turntable

Default senstivity is 7.5mVrms and controllable 3.75~15mVrms

DAB+ Tuner and FM Radio Tuner

For high quality digital radio, X45 offers DAB+ tuner also

Two(2) High speed USB3.0 host port

For quick data transfer purpose, X45 offers two(2) high speed USB3.0 Host Ports at rear side

6.35mm Headphone Out at the front

X45 offers Headphone Out with senstivity of 100mW+100mW@1Khz, 600ohm, 0.1% THD

HEADPHONE

Load your vinyl and cassette tape collections to the X45 in192Khz Hi-Res digital audio file

CD Ripping with Gracenote CD metadata and Album cover art

Load all your CD collection onto the X45 Music Database in FLAC, ALAC, WAV or MP3 file format with professional CD metadata and album cover art from Gracenote

Music Database function

The X45 has a well-organized Music Database built-in, which offers very nice and convenient functions like SEARCH, display by text or cover art, SORT, various View, etc

Phono Input(MM) for your turntable

Just connect turntable to the X45 phono in directly to play your precious LP music and record it to the X45 in hi-res digital file. The X45 offers very smart and convenient auto cutting function to edit the recorded file with easy

Recording with 192Khz hi-res sampling rate

The X45 offers a recording function for internet radio, DAB+/FM radio, Analogue In, Phono In, AUX In including all digital inputs. You can make your own digital music collection with wonderful sound

Auto/Manual Cutting for the recorded files

Smart auto/manual cutting function to edit the recorded files is available at the X45. You can easily edit files and import them into X45 Music Database

Versatile Networking and Remote Control with a Customized App

Connect the X35 to your network for streaming music to and from other devices, listen to cloud based music services and control remotely using mobile devices with our customized remote control app, NOVATRON MusicX or WebInterface

Control remotely by mobile devices with customized Remote Control App, NOVATRON MusicX app

Major Music Streaming Services integrated

You can access tens of thousands of internet radio stations and online music services like TIDAL, Deezer, Napster and Qobuz including Spotify Connect function

Control remotely by PC with WebInterface

Control the X45 remotely by your PC with its nice WebInterface function

Support various network protocols like UPnP Server/Client/Renderer, Samba Server/Client

Stream songs to and from other compatible devices in the same network

AirPlay and Spotify Connect

You can play songs from iOS devices and musics from Spotify via X45 wirelessly

Control X45 by Roon

As X45 supports 'Roon Ready', you can control X45 with Roon, which is great music player for music loves

7 inch TFT LCD Screen for Intuitive GUI and HDMI Out for external screen

7 inch big screen will let you control the X45 easily with intuitive GUI, and connect it to your TV for an external screen to view bigger GUI or a slideshow of photos while listening to your music collection

DAB+/FM Radio Tuner built-in

Enjoy high quality digital radio via DAB+ Tuner, and record any song or broadcast with high quality sound

High Connectivity for various external devices

- 2 x USB3.0 host at rear and 1 x USB2.0 host at front
- USB Audio Class 2.0 Output
- GigaFast Ethernet LAN
- HDMI Out for external screen or Audio out
- USB Audio Input for USB DAC function
- Digital Out(Coaxial, Toslink, AES/EBU XLR, HDMI)
- Digital In
- Analog Out/Input
- Phono Input
- And more…..

Storage for Music Server

3.5"/2.5" SATA hard disk and Solid State Drive(SSD) is accepted to the X45, which supports up to 8TB capacity. You can install a storage easily thanks to a customized storage drive bay(drawer)

Rugged and durable casing

The X45 front panel is based on 13mm thickness aluminum with CNC cutting and total metal chassis. The die-cast aluminum feet provide rigidity along with additional resistance from external vibration.

Many Useful functions

Created by custom-designed smart software developed
by in-house R&D center

Listing by Text or Cover Art

To display album or song list by Text or Cover Art by pressing TEXT/ART key of RC

Sleep function

Pressing SLEEP key of RC will make X45 powered off automatically after set time

Jump to Song Mode

On Now Playing screen, pressing CAP/NUM key of RC will lead you to 'Jump to Song Mode' or 'Seek to Percent Mode' On 'Jump to Song Mode', pressing numeric key is to jump to the song equal to the pressed number

Auto CD Ripping function

When you want to rip many CDs, Auto CD ripping function will be helpful. If you insert CD to the X45, remaining tasks will be done by X45 until the CD is ejected after CD ripping is completed

To merge multi-album or rip it into one folder(Album)

You can rip Multi-album into one folder (album)

Auto Cutting function

Using this function, you can edit a file recorded by X45 easily.

Alarm

X45 offers Alarm function

Clock & Display OFF

Pressing CLOCK key of RC will make X45 screen show current clock or off

Seek to Percent Mode

On 'Seek to Percent Mode' pressing numeric key is to seek the location of the playing file equal to the pressed number

Display Mode

You can display Music DB list by unit of Album, Genre, Track, Artist, Composer, Year, Mood, etc

Reservation Recording

Schedule when you want the X45 to record iRadio with reservation recording

Edit recorded files

Edit recorded files cutting by unit of track or adding album tag info

ROON Ready

If you like 'ROON' remote app from Roonlabs, you can use it with the X45

Audio CD Burning

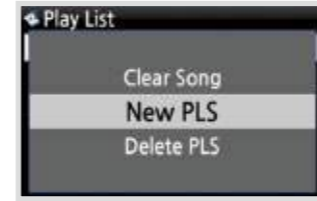You can burn Audio CD with the X45
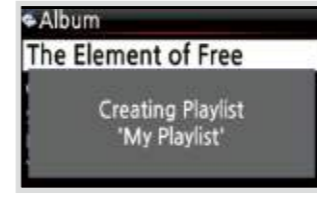
Scroll Speed

Control text scroll speed on the screen

Import & Export your music

Import/Export music to/from the X45 Music DB via USB or over a network

Make Playlist

Make 'My Playlist'

This is virtual playlist. If you stop playing it, My Playlist will disappear

HDD Sleep

Go into sleep mode as set

Section Repeat

Set specific section to play repeatedly

Audio file format conversion

Convert existing audio files into other formats, (e.g. mp3, FLAC, WAV, MP4) for use on other devices -MP3 player, car stereo, etc
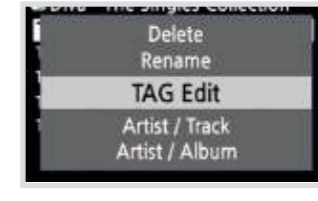
Gapless Playback

HDD Format

Easy solution to format hard disk with Linux file system or NTFS

Edit music tag info

Music DB backup & Restore

Auto Shutdown

Schedule when you want the X45 powered off

USB Keyboard

Use an USB keyboard to edit song tag info easily

Resume Play

After booting up, resume playing automatically where it was last stopped.