SYNERGY THAT DELIVERS

Yamaha & Steinberg history

Yamaha has been at the forefront of the professional audio industry ever since the PM1000 audio mixer was released in 1975. Products such as the NS10-M STUDIO monitor speakers, the 02R digital mixing console, and the SPX90 effects processor found their way into leading studios around the world, eventually earning reputations that made them "classics" in the field. DAWs (Digital Audio Workstations) became established as the primary working environment for audio production from the mid 90's through the turn of the century, and in January of 2005 Steinberg Media Technologies ("Steinberg" hereafter), a company that had contributed numerous advanced technologies and solutions to this growing field, became a wholly owned subsidiary of Yamaha. This pivotal fusion led to increasingly concerted development of integrated products and systems. Steinberg was originally established in 1984, rapidly becoming a source of important audio processing standards such as ASIO (Audio Stream In and Out), VST (Virtual Studio Technology), and others. These advanced technologies were incorporated into a number of revolutionary products, including the Cubase and Nuendo DAW applications that are currently favored by more than 1.5 million users worldwide.

Joint development between Yamaha and Steinberg has resulted in a number of audio interfaces and controllers that take full advantage of the performance potential of Steinberg DAW software. That synergy between two leaders in audio technology will continue to deliver increasingly advanced solutions for a wide range of applications into the future.

LPA648

P10027251

Printed in Japan

UNLEASH YOUR CREATIVITY.

Digital audio workstations, controllers, interfaces: your creative workflow can only be realized when Nuage Advanced Production System brings that defines new standards of quality and efficiency for Yamaha control and interface hardware seamlessly integrates with that offers unprecedented productivity and The Nuage Advanced production System is already a highly regarded asset giving discerning engineers the tools they need For professional post production. Nuage provides an unparalleled union of industry leading

performance that supports and keeps pace with all components work together in perfect harmony. it all together in a collaboration virtually every aspect of the production process. Steinberg Nuendo and Cubase DAW software in a purpose-built system flexibility as well as premium audio quality. in audio post-production and music production studios around the world. to turn out top-quality projects every day. music production, and recording applications. hardware and software that will set your creativity free.

5 KEY NUAGE VALUES

Maximum Benefit for User and Studio

_ More Than the Sum of its Parts

Nuage is much more than a DAW and controller combination. It is a fully integrated production system in every detail. A seamless fusion of Steinberg software with Yamaha hardware offers unprecedented operability and editing speed. The comprehensive visual feedback and intuitive control afforded by the system's Extensive Console View bring new levels of efficiency and productivity to a wide range of applications.
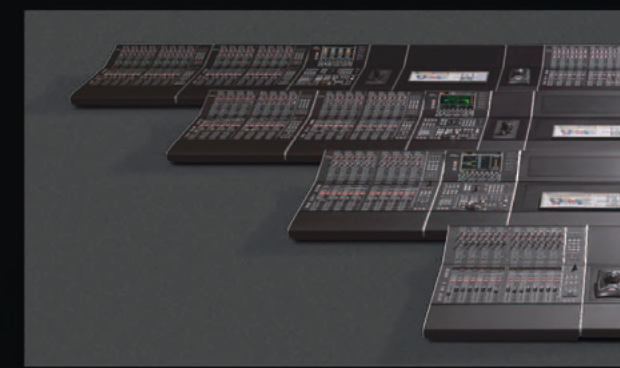
_ Mix and Match to Make It Your Own

The Nuage interface is comprised of Nuage Fader units, each with 16 fader and knob channels, and Nuage Master units that include all controls necessary for transport operation, editing, monitoring, and more. The units can be used individually or combined in systems configured to match the scale and workflow of different studios, with up to three Nuage Fader units per system. A UNIT LINK button allows units to be easily unlinked for two-man operation, and then linked again as necessary.

_ The Right Engine for Every Job

Up to three DAWS can be directly switched and controlled from a Nuage fader unit (Nuendo, Cubase, and Pro Tools, for example) so that dialog, sound effects, BGM, and other elements of a large project can be easily and efficiently brought together for final mixing. It is also possible to assign separate DAWs to mix and master recorder duty, or a variety of other configurations according to project requirements.

_ An Open-minded Host

Nuage signal processing is handled by a standard general-purpose computer. No dedicated DSP cards that limit system choices are required. The computer system can be configured to match workload requirements with maximum efficiency. This approach also allows the user to freely update the system as necessary. Stringent benchmark testing has been carried out with recommended computers to ensure stability. Close cooperation with leading manufacturers of peripheral equipment has led to outstanding performance and cost benefits in that area as well.

_ Tie It All Together

Nuage audio infrastructure is based on Dante networking, providing superior system flexibility as well as plenty of capacity for future expansion. Audio can be shared with CL series digital mixing consoles via Dante-equipped R series interface units such as the Rio3224-D and others, or the RMio64-D Dante/MADI Converter can be used to share audio with external MADI-format devices. All of this and more can be achieved in simple, streamlined systems.

NUENDO
Advanced Audio Post-Production System

A groundbreaking audio post-production solution at the heart of the Nuage system for audio and audio-for-video projects

Nuendo is an audio post production DAW that is a favorite with sound designers, mixers, and editors for its blazing editing speed, efficiency enhancing convenience, unrivalled sonic quality, and rock-solid stability. It also offers a comprehensive set of features for audio-to-picture work.

A comprehensive selection of surround mixing tools, dedicated ADR tools for dialog recording, refined loudness management, audio middleware support, and many more innovations provide capabilities that offer significant advantages for all types of audio post production for visual media such as movies, television, and games.

By dedicating Nuage control surface displays, buttons, and knobs to the advanced features in Nuendo, even greater creative control and efficiency are achieved for production quality that even the most demanding client or producer will applaud.

CUBASE
Advanced Music Production System

The DAW that can be the key to unlocking an artist's creativity for inspired musical innovation

For more than 25 years Cubase has been the go-to DAW for leading artists and producers who depend on it to compose, record, mix, and edit cutting-edge creations.

Proven sonic quality is complemented by virtual instruments and effects that spark the artists' imagination, an extensive selection of composition support tools, powerful audio/MIDI editing capabilities, and more features that are constantly being refined or added in cooperation with some of the most respected creators in the business. The result is a refined music creation tool that effortlessly covers a wide range of styles.

Nuage makes it easy to get the most out of the extensive capabilities that Cubase offers, providing a creative environment that is more intuitive, powerful, and productive than any other.

ADR Taker, fully integrated voice & foley recording solution

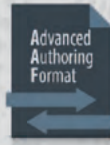Track Versions for easy track handling
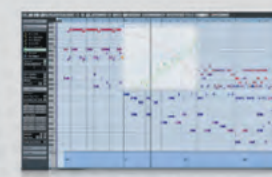
Integrated ReConforming solution

Automated Batch Export

MediaBay, powerful file management

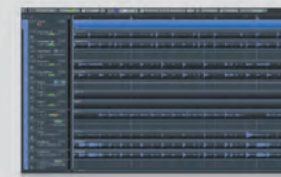Seamless import of AAF files from Pro Tools and Media Composer
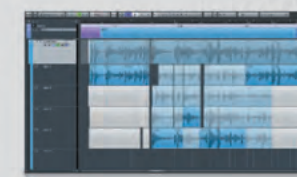
Powerful MIDI editors

Intelligent compositional tools

VST Connect SE, the freedom to collaborate and produce together

Smart multi-track editing

Ultra-fast multi take comping

VariAudio, integrated vocal editing and pitch alteration
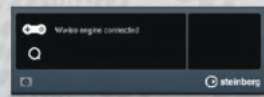
Direct connection to Audiokinetic Wwise middleware

IOSONO Anymix Pro for a revolutionary surround panning and upmixing

Fully integrated loudness metering solution
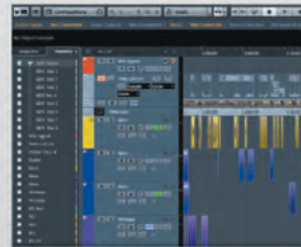
Track visibility management for huge projects

Plug-ins for professional post production

Warp quantizing

Quick Controls for extended accessibility

VCA Faders for high-level mixing and automation

Render in-place to bounce MIDI and audio parts easily

Outstanding virtual instruments and effects

NUAGE FADER
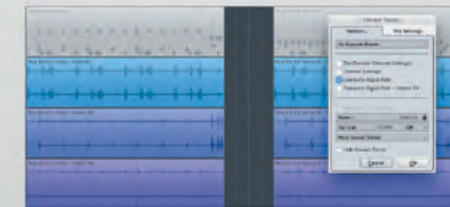# NUAGE MASTER

Refined mixing and editing control for Nuage systems brings the full potential of the DAW to life

_ Extensive Console View Consolidates Controls and Parameters

Any standard 24″ LCD monitor display* can be used to provide a smooth visual extension of the physical Nuage fader channel strips right into the Nuendo/Cubase mixer window. The continuity between control surface and display achieved by the Extensive Console View concept keeps all controls and parameters in context so the operator can intuitively reach for the right fader, button, or knob while concentrating fully on the job at hand.
＊Monitor display(s) are not included and must be supplied by the user.

Channel Setting Mode

Dual Channel Setting Mode

_ Multi Function Knobs for Faster, More Direct Control

Each of the sixteen channels on the Nuage Fader unit has two touch-sensitive Multi Function Knobs. METER, PRE, ROUTING, PAN, SENDS, CUE, and other parameters can be instantly selected and operated as required. For even more comprehensive control a channel [e] button can be pressed to engage the Channel Setting Mode in which parameters for that channel can be directly controlled via all 32 of the console's Multi Function Knobs. There's also a Dual Channel Setting mode that allows two channels to be selected with parameters controlled by 16 Multi Function Knobs each. A number of other features such as three levels of control (normal, fine, and super-fine) and fader adjustment of parameters assigned to the knobs further enhance flexibility.

_ Multi Function Display Streamlines Operation

The Nuage Master unit touch-screen Multi Function Display allows fingertip access to all record, playback, mix, edit, monitor, and preference parameters. It is an ideally designed sub-display that offers highly efficient workflow support.

EQ

Plug-Ins

Quick Control

VST Instruments

Locate

Marker

Track List

Cues

_ Channel Navigation Makes Getting Around Easy

Slide a finger along the Nuage control surface touch slider bar to bring any desired channel into view. The channel name display icon and channel knob color will instantly change to match the Nuendo/Cubase display so you'll always know exactly which channel is currently the focus of mix or edit operations. Channel layout can be easily customized in a number of ways: bring all channels of a specified type up on the Nuage faders with a single button, link multiple channels, move stem or master buses to the leftmost or rightmost faders so they can be accessed whenever needed, and more.

CHANNEL VIEW CONTROL

[INPUT] Show/hide input channels

[AUDIO] Show/hide audio channels

[OUTPUT] Show/hide output channels

[FX] Show/hide effect channels

[GROUP] Show/hide group channels

[OTHERS] Show/hide MIDI channels, instrument channels,and others

[EVENT ON TR] Show only tracks that contain audio events while button pressed

[EVENT CYCLE] Show only channels with audio events within a cycle while button pressed

[PLAYING CH] Show the currently playing channels while button pressed

[SEL CH] Show only the selected channel

[EXPAND] Show only group, effect, and output channels routed to the selected channel

_ Full-featured Transport and Editing Section

One of the many advantages provided by Nuendo/Cubase is fast, flexible editing. That strength is bolstered even more by the extraordinarily well thought out design of the Nuage Master unit. Laid out around a high-resolution jog wheel that also offers sophisticated operating feel, the transport and editing section allows smooth, effortless operation of playback, record, and editing functions.

_ Powerful ADR Tools Built In

The Nuage system is packed with essential audio production features, and the facilities provided for dubbing and Foley are second to none. Operating in concert with Nuendo, an ADR Status Indicator shows the Rehearse/Record/Review status of actors in the video window, a Free Run Mode allows simultaneous recording of multiple scenes, and an ADR Take List enables easy management of takes. These and other features can be a huge advantage in demanding post-production environments.
＊ADR mode is only available when using Nuendo.
＊Panel shown with custom overlay sheet attached.

NUAGE FADER
NUAGE MASTER

_Advanced Automation Control

Nuage provides a complete duplicate of the Nuendo/Cubase Automation Panel where all automation settings can be managed as a group, with full access from the Nuage Master unit Multi Function Display. It is also possible to select the automation punch-out mode (Touch, Auto-latch, Cross-over) and the post punch-out behavior (Fill to Punch, Fill to Start, Fill to End) from the Nuage controls. Of course automation read and write buttons are provided on each channel strip, adding to the system's overall automation convenience and flexibility.

_"Control Room" Enables Large Studio Style Monitoring and Communication

The Nuendo/Cubase Control Room feature replicates large-console monitoring facilities in software. Control Room is faithfully recreated on the Nuage Master panel, providing a full-function monitoring and communication environment without having to add extra equipment.

☑ Up to four different monitor environments with different speaker configurations.
☑ MIX, EXTERNAL INPUT, and CUE 1-4 monitor source selection.
☑ Eight input/output buses can be registered and switched for the MIX source.
☑ Six external sources can be registered and switched for the EXTERNAL INPUT source.
☑ Talkback channel and headphone output included.
☑ Level display can be switched between the Nuendo/Cubase level (dB) and SPL.

_User Assignable Section

Every engineer has his or her own way of approaching the editing process, and every application presents different challenges. The Nuage Master unit features a "User Assignable Section" with controls that can be customized by the operator to provide direct access to the functions and parameters needed for the task at hand. Functions that need to be performed repeatedly, such as importing audio files, for example, can be assigned for one-button efficiency. 12 hardware user assignable buttons and 96 soft keys (24 x 4 banks) provide plenty of capacity.

_Fully Ready for Pro Tools Control

Although Nuage is primarily designed to work with a Steinberg Nuendo or Cubase DAW, the NUAGE PT Bridge driver allows efficient operation with Avid Pro Tools as well.* In addition to basic DAW control, it is possible to control plug-ins and assign shortcut keys to the Nuage user assignable buttons. Pro Tools can be implemented as the system's main DAW, or Nuendo can be the main DAW with Pro Tools also available to open and edit previously created Pro Tools sessions or accommodate outside engineers who bring in Pro Tools sessions.

＊As of April 2015 compatibility is provided with Mac OS editions of Pro Tools 9 through 11 and Pro Tools HD 9 through 11.
＊Nuendo or Cubase must be assigned as DAW A. Up to two Pro Tools instances can be simultaneously used per system.
＊Refer to the Nuage owner's manual for information on Pro Tools parameters that can be controlled from Nuage.

_Refined Exterior Design

The Nuage development team believes that a great console needs to offer more than features and functionality. It must also have sophisticated visual appeal that, as the centerpiece of the studio, will add a touch of class to the environment. That "atmosphere" is important whether a client is in the room or a creator is working long hours alone. The elegantly reserved design of the Nuage system expresses its advanced capabilities while solidly anchoring the visual space. Several product design awards from around the globe attest to its success.
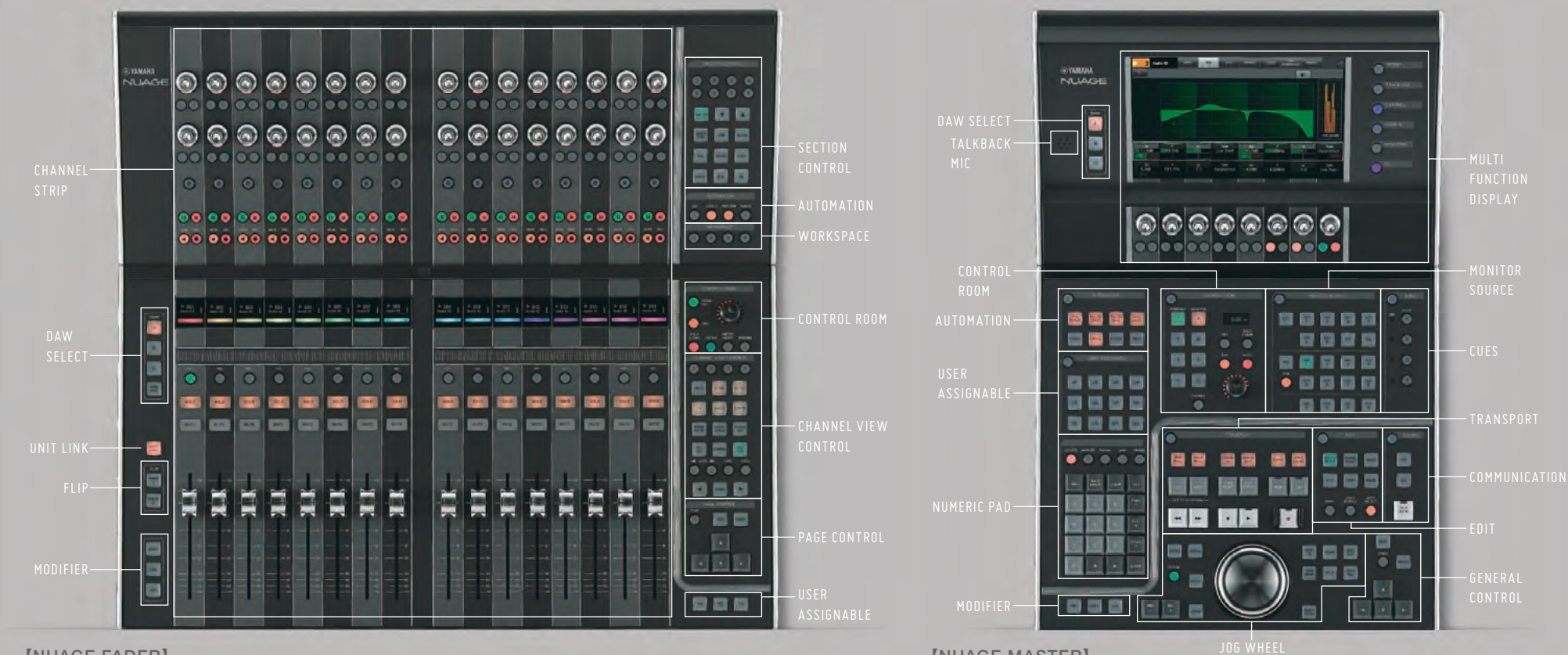
_NUAGE WORKSPACE for a streamlined and productive working environment

Nuage Workspace units feature dimensions and design that are a perfect match for the Nuage Fader and Nuage Master units, allowing a keyboard, surround panner, 19 inch rack mount devices, and other custom extras to be added to a Nuage system while maintaining overall workflow and visual unity. Two Nuage Workspace units are available: a large model that is the same size as the Nuage fader unit, and a small model that can be added to a Nuage Master unit to match the width of a standard 24″ monitor display. The palm rests on the Nuage Fader unit and large Nuage Workspace unit include a compartment that can house a computer keyboard.

＊The photo shows a custom installation.

NUAGE WORKSPACE LARGE

NUAGE WORKSPACE SMALL

EVERY FUNCTION WITHIN EASY REACH

Ergonomically refined layout supports your workflow

CHANNEL STRIP

DAW SELECT

UNIT LINK

FLIP

MODIFIER

SECTION CONTROL

AUTOMATION

WORKSPACE

CONTROL ROOM

CHANNEL VIEW CONTROL

PAGE CONTROL

USER ASSIGNABLE

DAW SELECT
TALKBACK MIC

CONTROL ROOM

AUTOMATION

USER ASSIGNABLE

NUMERIC PAD

MODIFIER

MULTI FUNCTION DISPLAY

MONITOR SOURCE

CUES

TRANSPORT

COMMUNICATION

EDIT

GENERAL CONTROL

JOG WHEEL

[NUAGE FADER]

AUTOMATION : Provides access to automation functions.
CHANNEL STRIP : Each channel strip has a touch-sensitive 100mm motor fader, two multi-function knobs, and a channel name/icon/color display.
CHANNEL VIEW CONTROL : Selects the channel category to be controlled by the panel faders.
CONTROL ROOM : Allows operation of the Nuendo/Cubase Control Room feature for monitor and communication control.
DAW SELECT : Selects between up to three connected DAWs.
FLIP : Allows the parameters assigned to the knobs to be controlled via the faders.
PAGE CONTROL : Controls display cursor movement and screen switching.
SECTION CONTROL : Selects the parameters to be controlled by the multi-function knobs.
UNIT LINK : Links or separates operation of up to three units.
USER ASSIGNABLE : Allows unrestricted shortcut assignment.
WORKSPACE : Recalls pre-programmed DAW window layouts.

[NUAGE MASTER]

AUTOMATION : Provides access to automation functions.
COMMUNICATION : Assignment and control of the Control Room talkback function.
CONTROL ROOM : Links to the Nuendo/Cubase Control Room feature, allowing switching between monitor speakers, downmixes, and more.
CUES : Switches Control Room cues 1–4 on or off.
DAW SELECT : Selects between up to three connected DAWs.
EDIT : Allows object/region selection, copy/paste editing, and more.
GENERAL CONTROL : Project file save, cursor movement, and other operations.
JOG WHEEL : Six modes and seven functions control a wide range of parameters.
MONITOR SOURCE : Switches Control Room sources (8 x EXTERNAL INPUT, 8 x MIX, 4 x CUE).
MULTI FUNCTION DISPLAY : Touch screen and knob provide access to all major parameters and operations.
NUMERIC PAD : Switches between six modes, allows numeric cursor and marker position entry, and more.
TRANSPORT : Transport control, punch in/out, and project window recall.
USER ASSIGNABLE : Assigns shortcuts to the 12 user assignable buttons.

CONFIGURATIONS FOR A WIDE RANGE OF NEEDS

Variations in size, equipment, projects handled, and operation style make every studio unique.

Choose the Nuage configuration that best suits your studio.

// Small Scale Setup with
   1x Nuage Fader

// Small Scale Setup with
   1x Nuage Master

// Small Scale Setup with
   1x Nuage Fader & 1x Nuage Master

// Mid Scale Setup with
   2x Nuage Fader & 1x Nuage Master

// Large Scale Setup with
   3x Nuage Fader & 1x Nuage Master

NUAGE I/O

Outstanding sound, innovative features,
and extensive scalability in an innovative
audio interface

_ Absolute Fidelity

True sonic creativity can only begin with a faithful, uncolored reproduction of the source. Sounds produced in the studio must first be captured accurately, and then the artistry can begin. This fundamental Yamaha design policy is fully inherited in the Nuage audio interface. JetPLL™ technology for minimal jitter, precision DA converters with 32-bit processing, and scrupulous parts selection are complemented by exhaustive listening tests and fine tuning by some of the best ears in the business. No effort has been spared in ensuring that Nuage I/O is capable of delivering unrivalled quality for any type of production.

_ An Ideal Monitoring Environment for Artists

Latency can be a problem for narrators or artists who must work with a monitor return from the sound system. Nuage I/O includes a True Integrated Monitoring™ feature* that uses an internal DSP to deliver the monitor signal, rather than returning the signal that has passed through the DAW. This results in extremely low latency to the studio monitor headphone feed, giving artists the sonic environment they need to perform at their very best.

＊Nuage I/O True Integrated Monitoring is used in conjunction with the Nuendo Control Room feature.

_ Optimized Surround Monitoring

The Nuendo DAW at the heart of the Nuage system is well known as an advanced surround mixing tool, and to make maximum use of that capability Nuage I/O supports full 7.1 channel surround monitoring. The built-in DSP based bass management, delay, and level adjustment functionality can be used set up an optimized surround monitoring environment for any studio.

_ Three Configurations with Cascade Capability

Nuage I/O units are available with three I/O configurations: 16 analog, 16 AES/EBU digital, or 8 analog + 8 digital. These can be combined to provide the right complement of I/O channels for your application. Since up to eight Nuage I/O units can be cascade connected, you can have as many as 128 channels available for large-scale systems.

＊Cascade cables should be no longer than ten meters in length.

_ Simple Cabling and Ultra-low Latency

In recent years one audio network has emerged as a favorite that has been adopted by more than 200 licensees around the globe: Dante, developed by Audinate.
The use of Dante audio networking technology in Nuage I/O allows high-quality, ultra-low latency audio transmission via standard Ethernet cables in systems that are quick and easy to set up. A secondary port supports redundant audio network connections to keep the network running even if a problem occurs.

_ Dante Support Means Broader Expandability

Dante offers advantages that go beyond low-latency multi-channel audio transmission. Compatibility with a wide range of Dante devices means that a vast range of configuration and expansion options are available for any system.
For example, the microphone preamplifiers in Dante equipped R series audio interfaces (Rio3224-D/Rio1608-D/Ri8-D/Ro8-D) can be remotely controlled from the Nuage Master or Fader control surface. It is also possible to share audio with CL or QL series consoles connected to the same Dante network. The R series Gain Compensation function ensures that the input levels of other devices are not affected when remote gain adjustments are made. The RMio64-D Dante/MADI converter offers even broader connectivity, allowing seamless connection with MADI based systems as well.

_ Dante Accelerator Enhances DAW Audio I/O Performance

Dante Accelerator, a core component of Nuage systems, is an innovative PCI Express audio interface card (Windows and Mac) that allows multi-channel audio transfer with low latency and high reliability. Working to transfer audio between a Nuage I/O and a computer based DAW, it can handle up to 128 input and output channels at 96 kHz with precise synchronization. A secondary port is available for redundant connections that ensure maximum reliability at all times.

＊The latest Mac Pro models (late 2013) do not have built-in PCIe slots, but are compatible with Thunderbolt expansion chassis from Magma and Sonnet Technologies that provide PCIe expansion supporting the Dante Accelerator card.

VERIFIED ADD-ONS ENHANCE SYSTEM POWER

Nuage systems can be used with a variety of hardware and accessories to create working environments that are ideally tailored to individual needs. Here we have compiled a selection of items that Yamaha has tested and recommends for use with Nuage systems.

Computer (Mac)
Apple Mac Pro (Late 2013)
The latest model featuring the Intel Xeon X5 CPU
※Require a Thunderbolt expansion chassis for Dante Accelerator connection.

Computer (Mac)
Apple Mac Pro
With up to 12 processor cores for blazing performance

Computer (Windows)
HP Z820 Workstation
This mini-tower workstation features the latest Intel architecture for fast, stable operation.

Monitor Display
HP Z24i
24" professional monitor display with high-quality AH-IPS panel

Audio/Video Synchronizer
Steinberg NUENDO SYNCSTATION
Nuendo SyncStation is a hardware synchronizer that facilitates sample-accurate timecode synchronization between audio and video equipment.

Thunderbolt Expansion Chassis
Magma ExpressBox 1T
PCIe expansion chassis that allows the Dante Accelerator card to be connected to late 2013 Mac Pro models via Thunderbolt
※The Magma ExpressBox 3T is also supported.

Thunderbolt Expansion Chassis
Sonnet Echo Express SE II
PCIe expansion chassis that allows the Dante Accelerator card to be connected to late 2013 Mac Pro models via Thunderbolt
※The Echo Express Ⅲ-D is also supported.

Thunderbolt Expansion System / 4U Rackmount Enclosure
Sonnet xMac Pro Server
This Thunderbolt expansion unit provides audio transfer between a Dante Accelerator and a Mac Pro computer while neatly rack mounting the Mac Pro (late 2013 model).

Graphics Card (Mac)
ATI Radeon HD 5870 for Mac
1 GB of GDDR5 memory in a high-performance graphic card for Mac computers

Graphics Card (Windows)
AMD FirePro V7900
A single-slot graphics card with impressive multi-display capabilities

Keyboard
Logic Keyboard
An ideal keyboard for Nuendo/Cubase operation, with a wealth of assignable shortcut keys

Surround Panner
JL Cooper Nuage Surround Panner
JL Cooper's 3-axis joystick allows exceptionally smooth surround sound control.

Display Arm
Ergotron LX Dual Side-by-Side Arm
This flexible, solidly constructed display arm in invaluable for multi-display systems
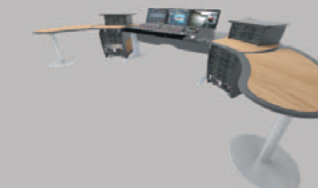
Custom Desk
Argosy Mirage for Nuage
Elegant studio furniture specifically designed to house Nuage systems

Custom Desk
AKA Design ProWave System
ProWave Desk designed for Nuage with rack and table options

Custom Desk
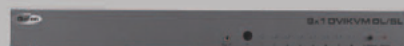## Sound Construction & Supply Yamaha Nuage 1 Desk
Hand crafted and finished in Nashville TN.

KVM Switch
Gefen 8x1DVI KVM DLSL
Operate multiple DAWs from a single keyboard and mouse.

I/O Rack
Yamaha R Series (AD/DA)
Dante equipped microphone preamps/AD converters, remotely controllable from Nuage
※Four models: 8-in, 8-out, 16-in/8-out, 32-in/24-out

Dante/MADI Converter
Yamaha RMio64-D
The RMio64-D Dante/MADI conversion I/O rack is here. It supports a wide range of broadcast and live sound applications with extraordinary flexibility, and without getting in the way.

Routing Processor
Yamaha DME64N/24N
A multipurpose processor that can be used for inter-studio routing, bass management, and much more
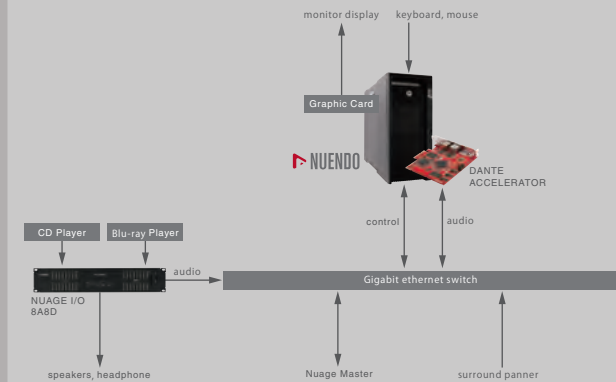
FOR STUDIOS OF ANY SCALE OR PURPOSE

// Sound Design Room

☑ Audio editing and sound effect creation are the primary purposes of this small system (no final mixing), so a single Nuage Master unit is all that is required.

☑ The Nuendo Control Room feature is used for monitor control, and since no voice-over or narration recording will be done, talkback/communication facilities are not needed.

☑ A single 5.1 channel speaker setup is provided, with only the front L and R speakers used for stereo projects.

☑ The Bass Management function built into Nuage I/O is used when bass management is necessary.

CONTROL ROOM

MACHINE ROOM

// Small Scale Studio

☑ This small post production system featuring one Nuage Master unit and one Nuage Fader unit is intended primarily for in-the-box production.

☑ The Nuendo Control Room feature is used to control the monitor system as well as communication for voice-over recording. The cue mix is created within Nuendo, while Control Room is used for the talkback mix.

☑ A 7.1 channel speaker setup is provided, with only the front L and R speakers used for stereo projects.

☑ The Bass Management function built into Nuage I/O is used when bass management is necessary.
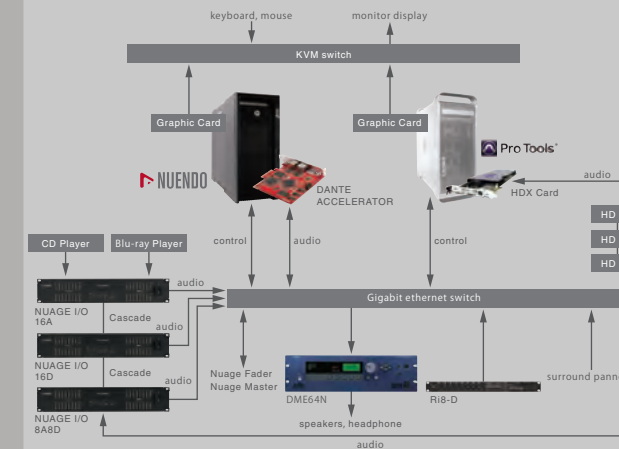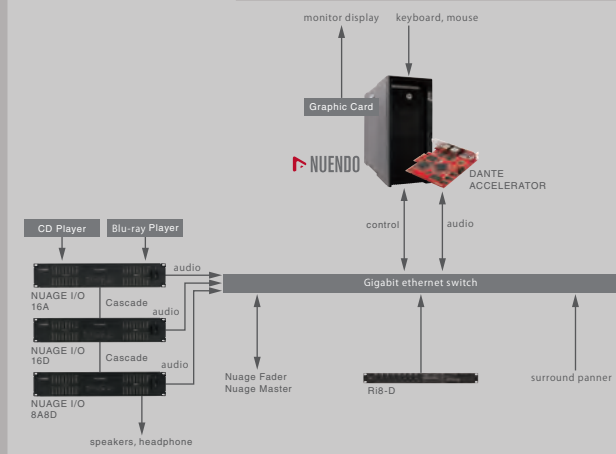
CONTROL ROOM

MACHINE ROOM

// Mid Scale Studio

☑ This mid-size post production system featuring one Nuage Master unit and two Nuage Fader units is intended primarily for in-the-box production.

☑ Nuendo is assigned to DAW A and Pro Tools is assigned to DAW B, allowing DAWs to be switched as required.

☑ The Nuendo Control Room feature is used to control the monitor system as well as communication for voice-over recording. The cue mix is created within Nuendo, while Control Room is used for the talkback mix.

☑ A DME64N Digital Mixing Engine is provided so that the monitor system and booth communication can be used even when Nuendo is not running.

☑ Three monitor systems are provided: 7.1 channel large monitors, stereo near-field monitors, and compact speakers for user-environment preview.

CONTROL ROOM

MACHINE ROOM

// Theater

☑ A combined live sound reinforcement, live broadcast, and production system based around a Dante audio network.

☑ Audio is transferred from the stage inputs to the front-of-house and monitor consoles as well as the Nuage system via the Dante network, and is converted to MADI audio for transmission to an OB van.

☑ The Rio3224-D audio interface includes a gain compensation function that digitally adjusts output gain when analog gain changes are made remotely from the CL console or Nuage system, so that input levels on other devices are not affected.

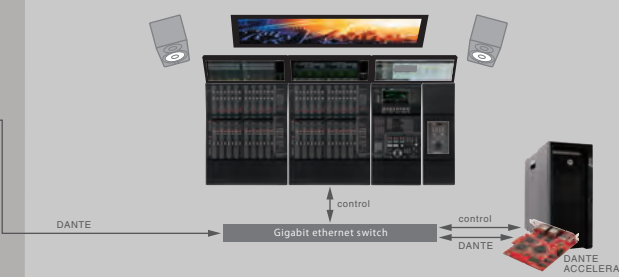☑ Nuage system input level adjustments are made via Nuendo/Cubase when gain compensation is activated.

LIVE SOUND STAGE
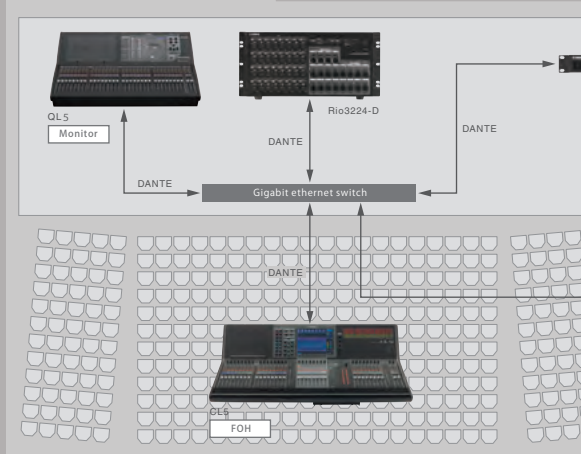
OB VAN

STUDIO

WE CHOSE NUAGE

Users around the world speak out

// beBlue Studio — JAPAN

"Nuage offers a number of functions that are vital to realizing our studio concept, and Yamaha was extremely helpful in implementing numerous requests from us."

_ Kazutaka Someya, sound designer

// Bing Bang Boom! — USA

"I had been waiting a long time for the Nuage system and Yamaha/Steinberg have delivered way beyond my expectations!"

_ Bill Byrne, CEO

// Die Seer — AUSTRIA

"Everything is easily reachable from Nuage, making music recording and production a remarkably painless process."

_ Alfred Jaklitsch, producer

// Dog & Pony Show — USA

"The support from Yamaha and Steinberg has been fantastic; they are very focused on the end user and open to suggestions for future product enhancements."

_ John McClain, owner

// M&E Studios — GERMANY

"The haptics, the look and feel were just what we needed and it gave us instant access to all the facilities where we had to use workarounds with the previous controller."

_ Arne Damman, sound engineer / foley artist

// Merayah Studio — BELGIUM

"I am no longer a technician operating a mouse of a computer, working with Nuage has brought production and mixing back to being a very instinctive process."

_ Sammy Merayah, producer

// Merki Music — SWITZERLAND

"Nuage has had a huge positive impact. It has integrated effortlessly with my workflow, giving me similar control to the live sound consoles I'm familiar with."
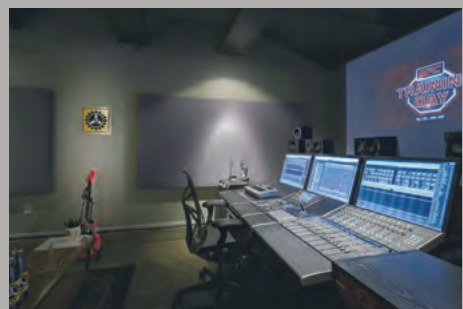
_ Christian Merki, composer/owner

// Philbeat — SINGAPORE

"Nuage provides an ideally seamless working environment for a composer and surround sound designer."

_ Philip Tan, multimedia creator

// Grind Music & Sound — USA

"With project deadlines having faster and faster turnarounds, Nuage lets us meet the demands of our partners and makes mixing even more fun."

_ Michelle Garuik, owner/engineer

// Highland Park United Methodist Church — USA

"No other manufacturer has an option that fit our needs more perfectly."

_ Bruce O'Leary, director of production

// IMAGICA — JAPAN

"Convinced of its value for commercial production, and with full support from Yamaha, we decided to go for a complete Nuendo and Nuage system."

_ Hiroyuki Murakoshi, senior sound supervisor

// Jereco Studios — USA

"I appreciate the deliberate move Yamaha has made to enable engineers to get back to mixing and editing as an art form."

_ Jeremiah Slovarp, producer/engineer

// The Shack — GERMANY

"Nuage Fader and Nuage Master provide all the necessary tools at hand."

_ Konrad Peschmann, sound engineer

// Stone Postproduction — SLOVAKIA

"Nuage works perfectly with Nuendo, while the flexibility and cost-effectiveness of the whole system was a significant factor in our choosing it."

_ Tomas Greso, sound engineer

// Temple of Tune — BELGIUM

"It's been like switching from flying an aircraft with a mouse and keyboard to flying it from within a real cockpit."

_ Fredo Gevaert, owner

// Undercurrent Labs — USA

"The integration of Nuage to manage 3D audio brings a level of creative collaboration to Georgia usually exclusive to LA and UK studios."

_ John Penn, film/music composer

SPECIFICATIONS

//NUAGE FADER (Ncs500-FD)

GENERAL SPECIFICATIONS

Fader Stroke	100mm
Fader Resolution (+12 to -∞dB)	1024steps
Power Requirements	40W
Power Consumption	US/Canada: 120V 60Hz, Japan: 100V 50/60Hz, China: 110-240V 50/60Hz, Korea: 220V 60Hz, Other: 110-240V 50/60Hz
Operating Temperature Range	0°C ~ 40°C
Storage Temperature Range	-20°C ~ 60°C
Dimensions (W x D x H)	581 x 720 x 156mm (22 7/8 x 28 3/8 x 6 1/8)
Net Weight	17.8kg (39.2lb)
Included Accessories	Power cable, Brackets (2), Getting Started Guide

*All level controls are the nominal position. Output impedance of signal generator:150ohms

CONTROL I/O CHARACTERISTICS

Terminal	Format	Connector in Console
NETWORK	IEEE802.3 (10Base-T/100Base-TX)	RJ-45
REMOTE	RS-232C	D-SUB Connector 9P (Male)

//NUAGE MASTER (Ncs500-CT)

GENERAL SPECIFICATIONS

Power Requirements	30W
Power Consumption	US/Canada: 120V 60Hz, Japan: 100V 50/60Hz, China: 110-240V 50/60Hz, Korea: 220V 60Hz, Other: 110-240V 50/60Hz
Operating Temperature Range	0°C ~ 40°C
Storage Temperature Range	-20°C ~ 60°C
Dimensions (W x D x H)	354 x 720 x 161mm (13 7/8 x 28 3/8 x 6 3/8)
Net Weight	10.0kg (22.0lb)
Included Accessories	Jog wheel, Power cable, Brackets (2), Getting Started Guide

ELECTRICAL CHARACTERISTICS

	Input	Output	RL	Conditions
Frequency Response	TO PHONES	Phones A or B	8Ω	Phones level control max, Input level +4dBu (typ), 20Hz-20kHz, ref to the nominal output level @1kHz	+0.5, -3dB
Total Harmonic Distortion [1]	TO PHONES	Phones A or B	8Ω	+4dB@20Hz-20kHz, Phones level control max	0.04%
Hum&Noise [1]	TO PHONES	Phones A or B	8Ω	residual output noise, residual output noise	-100dBu
Crosstalk@1kHz [3]	CH L	Phones out CH R	-	L/R, adjacent inputs	-80dB
	CH R	Phones out CH L			

*All level controls are the nominal position. Output impedance of signal generator:150ohms. 0dBu = 0.775Vrms

ANALOG INPUT CHARACTERISTICS

Input Terminals	Actual Load Impedance	For Use With Nominal	GAIN	Input level Nominal	Input level Max. before clip	Connector in Console
TO PHONES	20KΩ (BAL)	150Ω Lines	0dB	+4dBu (1.23V)	+30dBu (24.56V)	XLR-31type connectors ×4

ANALOG OUTPUT CHARACTERISTICS

Output Terminals	Actual Load Impedance	For Use With Nominal	Input level Nominal	Input level Max. before clip	Connector in Console
PHONES A	100Ω	8Ω Phones	4mW	25mW	Stereo Phone Jack (TRS) (Unbalanced) [5]
		40Ω Phones	12mW	75mW	
PHONES B	100Ω	8Ω Phones	4mW	25mW	Stereo Phone Mini Jack (TRS) (Unbalanced) [5]
		40Ω Phones	12mW	75mW	
TALKBACK OUT	75Ω	600Ω Lines	+4dBu (1.23V)	+24dBu (12.3V)	XLR-3-32 type (Balanced) [4]

CONTROL I/O CHARACTERISTICS

Terminal	Format	Connector in Console
NETWORK	IEEE802.3 (10Base-T/100Base-TX)	RJ-45
REMOTE	RS-232C	D-SUB Connector 9P (Male)

[1] Total Harmonic Distortion is measured with 80kHz LPF. [2] Hum & Noise are measured with A-weighting filter and 30kHz LPF. [3] Crosstalk is measured with a -30dB/octave filter @22kHz. [4] XLR-3-31 and XLR-3-32 type connectors are balanced. (1=GND, 2=HOT, 3=COLD) [5] PHONES stereo phone jack is unbalanced. (Tip=LEFT, Ring=RIGHT, Sleeve=GND)

//NUAGE I/O (16D/16A/8A8D) (Nio500-D16/Nio500-A16/Nio500-A8D8)

GENERAL SPECIFICATIONS

Sampling Frequency	Internal	44.1kHz/48kHz/88.2kHz/96kHz/192kHz	
	External	44.1kHz +4.1667%/+0.1%/-0.1%/-4.0%	±200ppm
		48kHz +4.1667%/+0.1%/-0.1%/-4.0%	±200ppm
		88.2kHz +4.1667%/+0.1%/-0.1%/-4.0%	±200ppm
		96kHz +4.1667%/+0.1%/-0.1%/-4.0%	±200ppm
		176.4kHz +4.1667%/+0.1%/-0.1%/-4.0%	±200ppm
		192kHz +4.1667%/+0.1%/-0.1%/-4.0%	±200ppm
Frequency Response	≤0.5dB, 20Hz-20kHz,ref to the nominal output level		
THD+N [6]	@1kHz, Input&Output Gain:0dB, Input level +4dBu (typ)		
Dynamic Range	Less than 0.005%, input to output, GAIN:0dB		
Crosstalk@1kHz	120dB typ., ADC		
	120dB typ.,DAC		
	-100dB, CH1-16 , adjacent inputs		
Power Requirements (wattage)	Nio500-D16: 51W		
	Nio500-A16: 51W		
	Nio500-A8D8: 51W		
Power Requirements (voltage and hertz)	US/Canada: 120V 60Hz		
	Japan: 100V 50/60Hz		
	China: 110-240V 50/60Hz		
	Korea: 220V 60Hz		
	Other: 110-240V 50/60Hz		
Dimensions (W x D x H)	480 x 369 x 88 (18 7/8 x 14 1/2 x 3 1/2)		
Net Weight	NUAGE I/O 16D: 6.4kg (14.1lb)		
	NUAGE I/O 16A: 6.7kg (14.8lb)		
	NUAGE I/O 8A8D: 6.7kg (14.8lb)		
Included Accessories	Power cable, Ferrite core, Rubber stoppers (4), Operation Manual		

[6] These characteristics are measured with A-weighting filter and/or 30kHz LPF.

ANALOG I/O CHARACTERISTICS

Terminal	Actual Load Impedance	For Use With Nominal	GAIN	Input level Nominal	Input level Max. before clip	Connector in Console
ANALOG INPUT	20KΩ (BAL)	150Ω Lines	0dB	+4dBu (1.23V)	+24dBu (12.28V)	D-SUB Connector 25P (Female)
	10KΩ (UNBAL)	600Ω Lines	+12dB	-10dBV (0.32V)	+10dBV (3.16V)	
ANALOG OUTPUT	75Ω (BAL)	10KΩ Lines	0dB	+4dBu (1.23V)	+24dBu (12.28V)	D-SUB Connector 25P (Female)
			-6dB		+18dBu (6.16V)	

DIGITAL I/O CHARACTERISTICS

Terminal	Format	Data length	Level	Connector in Console
AES/EBU	AES/EBU Professional use	24bit	RS422	D-SUB Connector 25P (Female)
Primary/Secondary	Dante	24bit	10000Base-T	RJ-45 x 2
Cascade	-	32bit	LVDS[7]	RJ-45 x 2

CONTROL I/O CHARACTERISTICS

Terminal		Level	Connector in Console
WORD CLOCK	IN	TTL/75Ω terminated	BNC Connector
	OUT	TTL/75Ω	BNC Connector
System Link Out		1.0±0.2Vp-p/75Ω [8]	BNC Connector

[7] Hi Speed CML [8] AES-3id

//DANTE ACCELERATOR (AIC128-D)

GENERAL SPECIFICATIONS

| PCI Express card	Compatible with PCI Express x4 slots v1.0 and above
Audio Interface	ASIO (Windows 7 / 8) or Core Audio (OS X 10.7.5 / 10.8 / 10.9)
Audio channels	256 channels (128 in/128 out @ 96 kHz or less) 128 channels (64 in/64 out @ 176.4 kHz or more)
Supported Sample Rates	44.1, 48, 88.2, 96, 176.4, and 192kHz
Pull-up/Pull-down	+4.1667, +0.1, -0.1, and - 4.0 %
Sample bit-depth	24 bit
Dante Network interface	Gigabit (1000Mbps; 1Gbps) Ethernet RJ45 port x2

SYSTEM REQUIREMENT

|		Win	Mac
OS		Windows 7 (SP1) (32-bit/64-bit) Windows 8/8.1	OS X 10.7.5 / 10.8 / 10.9
PC		PC with Intel Core i5 / Intel Core i7 (2nd Generation "Sandy Bridge" Core i7 or later recommended)	Mac Pro (Early 2009) or later
Memory		8GB or more	6GB or more
HDD		64M Cache (recommended) 7200rpm	
PCIe SLOT		x4 lane or above	x4 lane or above
Thunderbolt Expansion Box		-	Magma: ExpressBox 1T/3T Sonnet: xMac Pro Server, Echo Express SE II, Echo Express III-D, Echo Express, Echo Express Pro

// NUAGE FADER
(Ncs500-FD)

17.8kg (39.2lb)

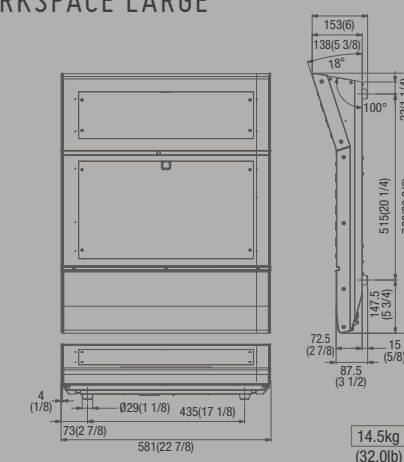// NUAGE MASTER
(Ncs500-CT)

10.0kg (22.0lb)
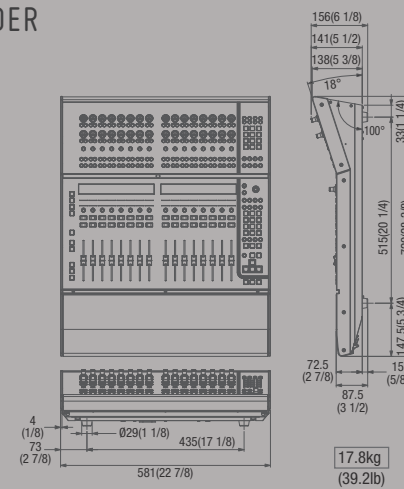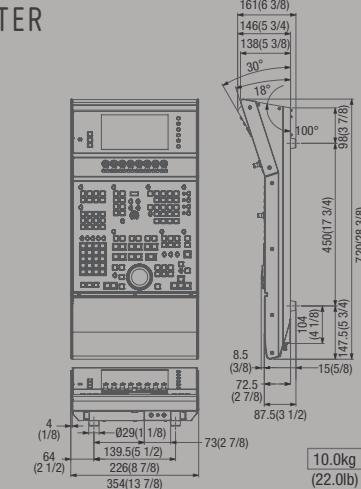
// NUAGE I/O (16D/16A/8A8D)
(Nio500-D16/Nio500-A16/Nio500-A8D8)
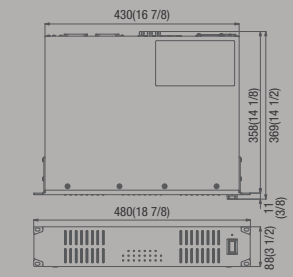
* All models are same size.

| Nio500-A16 / Nio500-A8D8 | 6.7kg (14.8lb) | Nio500-D16 | 6.4kg (14.1lb) |

// NUAGE WORKSPACE LARGE
(Nws500-LG)

14.5kg (32.0lb)

// NUAGE WORKSPACE SMALL
(Nws500-SM)

5.7kg (12.6lb)

mm(inch)