Thunder|Core

Pristine and versatile Audio Interface for Music Recording, Post and Live Production

DAD
BY NTP TECHNOLOGY

AX Center

1,106 input and 1,112 output channels audio interface with:

- 2 channel microphone/line/instrument input
- Dual stereo headphone output
- Dual stereo monitor outputs
- 256 channel Thunderbolt 3 I/O
- 256 channel Dante I/O
- 64 channel MADI I/O

- 16 channel ADAT I/O
- 2 slots for optional multi-format DAD I/O cards
- 512x64 channel Pro|Mon summing and speaker EQ processing
- One slot for 128 channel Dual MADI or 256 Channel DADlink module with SFP I/O
- Sample rates supported from 44.1 to 384 kHz

Optional

Optional
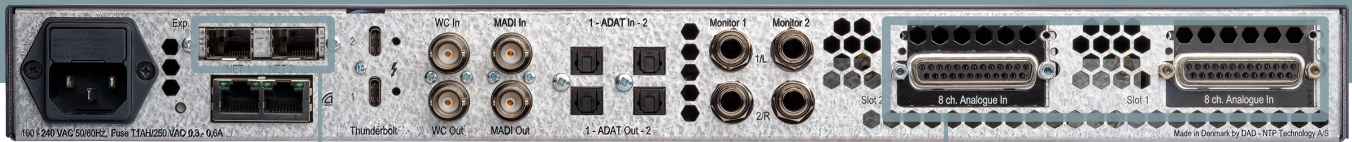
Distinguesed sound quality right out of the box

AX Center was born to sit in a rack right next to you in the studio, in your portable recording rig or your live music central rack – or maybe even on your desktop. It's the audio interface that dreams are made of, as it unites ultimate flexibility and the legendary audio quality of pristine Digital Audio Denmark AD & DA conversion with the renowned transparency and musicality of our mic preamps.

It's all about capturing the source truthfully and getting it into any DAW you may use exactly as it is – and to get your production out exactly as you intended, envisioned and simply heard it.
Easily accessible right in the front plate, you get two XLR/1⁄4" jack combo inputs for connecting microphones and instruments. This is your right-out-of-the-box A/D conversion stage that is already coupled with the preamps that have only been available as part of our Analogue In expansion card until now. Also on the front, you get another D/A conversion stage via two high-performance headphones outputs – perfect for co-producing.
On the rear, you'll find one of two out-of-the-box D/A conversion stages, as you get two stereo outputs for connecting two sets of studio monitors on balanced jack connectors. We support that most studios — regardless of size — would like to have an alternative pair of studio speakers connected.

Optional Analogue Expansion

Staying within the analogue realm, you can add even more AD & DA converters to the table via the two available expansion slots. In this example, two Analogue In expansion cards with 8 channels each have been installed. These cards can be either balanced line signals or with preamp stages activated, which is available as a separate license that you can apply at any time in case you want to upgrade one or both cards according to your needs. Yes, that's correct – you can have up to 18 input channels with DAD preamps

and A/D conversion in a single AX Center unit! In this configuration, AX Center would be the perfect center piece in smaller studios, or for super high-quality location multi-track recording in the field or in the center of your live rack bridging your I/O, mixing desk, and processors.

THD+Noice A/D and D/A conversion
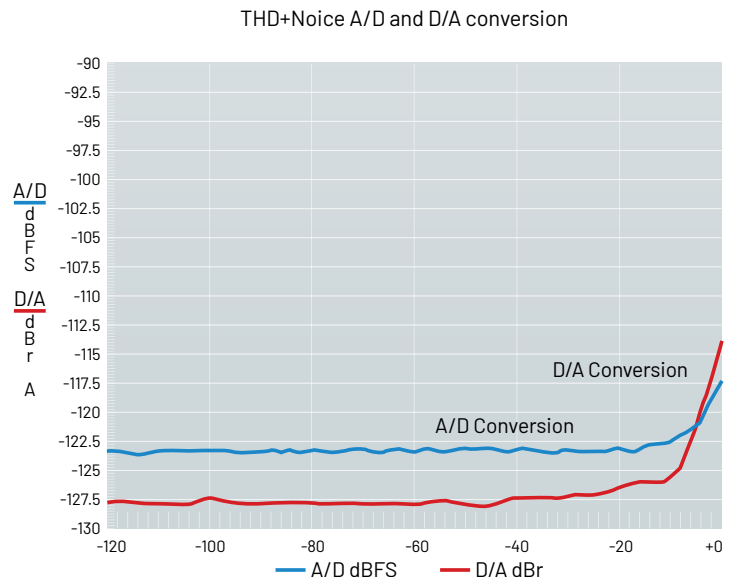
Optional Digital Expansion

You can also utilise one or both of the available expansion slots for our digital expansion cards, including Dante, AES, Dual MADI, and Dual SDI cards. For example, the AES card could deliver digital outputs for studio monitors with digital input options, or you could use it for inserting digital outboard gear without additional AD & DA conversion stages. Or you may want to add Dante channels with onboard SRC. Finally, you have two different ways to expand your MADI channel count, as you can both install our Dual MADI expansion card and/or use our SFP MADI module ports. The Dual MADI expansion card also provides the DADlink functionality for zero latency interconnection between multiple units.

Control

The AX Center audio interface is controlled via the DADman software. DADman can connect to the AX Center either via Ethernet or via a communication channel in the Thunderbolt connection. More units can be daisy chained via the Thunderbolt connection, and each unit will appear in DADman. Using control over Ethernet the two RJ45 connectors act as a switch for connection to more units. The Dante /AES67 audio is also passed on the two RJ45 connectors.

Features

- Thunderbolt 3 I/O (256 channels at 48 & 96 kHz)
- Dante AoIP I/O (256 channels at 48 kHz, 128 channels at 96kHz)
- MADI I/O (64 channels at 48 kHz)
- ADAT I/O (16 channels)/SPDIF (2 channels)
- Up to 256x256 channels I/O via optional cards
- Up to 256x256 channels I/O via optional module
- 512x64 channel Pro|Mon monitor control
- Speaker EQ 128 channel w 16 filters
- 28bit floating point processing
- Avid Eucon enabled devices via DADman
- Apple macOS and Windows compatible software
- Control via Ethernet or Thunderbolt connection
- Word Clock I/O
- 15W power on each Thunderbolt 3 port

Dynamic Range

A/D Conversion
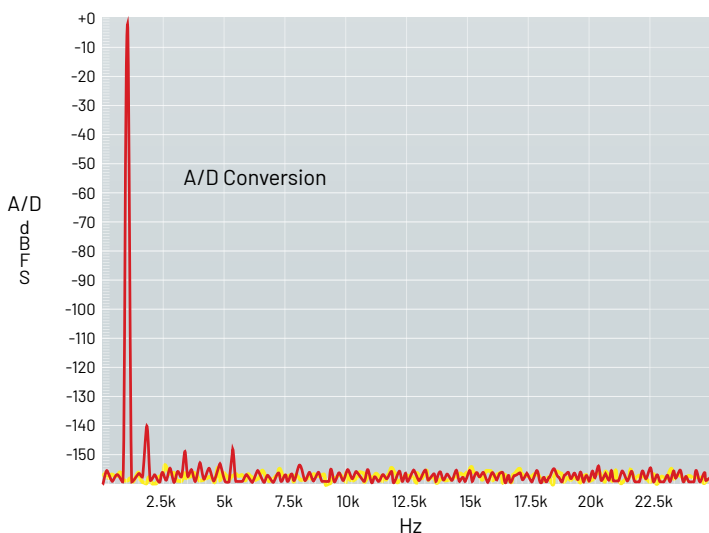
Specifications

- Dynamic range, ADC (A) > 125 dB
- THD+N, ADC (A) < -120dB @ -3 dBFS
- Dynamic range, DAC (A) > 128 dB
- THD+N, DAC (A) < -115 dB @ -3dBFS
- Crosstalk (A) < 120 dB
- Mic equivalent noise (A) < -132 dB @ 100 Ohm
- Mic gain range -18 dB to +70 dB, gain step 0.25 dB
- Headphone impedance 18 Ohm to 600 Ohm
- Headphone level -80 dBu to 19 dBu
- Sample-rates 44,1 to 384 kHz
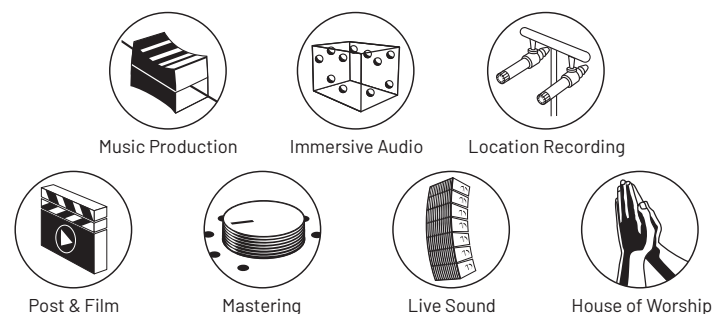- Clock accuracy < 2 PPM via digital PLL
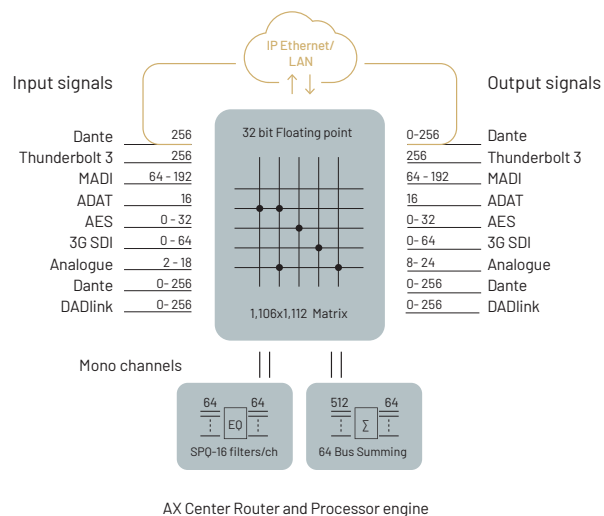
AX Center Router and Processor engine

The AX Center Thunder|Core audio interface provides a Thunderbolt 3 connection with near-zero latency and a 32-bit floating-point data format for interfacing between audio applications on macOS or Windows computers and the Thunder|Core audio hardware. The routing processor can route all 1,106 input channels and 1,112 output channels in any configuration and combination. Every connection has a defined latency of 7 audio samples, and all channels on the interface are 100% time and phase aligned.

DAD Link

Using the DADlink proprietary fiber optical interface a super-fast highway can be established between DADlink-compatible units such as AX64, AX Center, Core 256, AX32, and more. Depending on the sample rate, you can transfer up to 128 bidirectional channels between units at zero latency. Sample rates from 44.1kHz to 384kHz are supported, and the dynamic range is a staggering 237 dB, ensuring a fast and reliable transfer at the highest audio quality imaginable.

Applications

Music Production

Immersive Audio

Location Recording

Post & Film

Mastering

Live Sound

House of Worship

Core 256

848 input and output channels digital router and monitoring interface with:

- 256 channel Thunderbolt 3 I/O
- 256 channel Dante I/O
- 64 channel MADI I/O
- 16 channel ADAT I/O

- 512x64 channel Pro|Mon summing and speaker EQ processing
- One slot for 128 channels Dual MADI or 256 Channel DADlink module with SFP I/O
- Sample rates supported from 44.1 to 384 kHz

Optional

Features and specifications

The Thunder|Core-driven Core 256 does not take up much space, but the power you can squeeze out of this little box might make your jaw drop to the floor. With tons of channels, a wide palette of digital connectivity, built-in SPQ processing, Eucon control compatibility, internal summing engine and drivers for macOS and Windows, it is a pristine digital audio interface by any measure and for just about any application.

The Tiny Immersive Audio Hero

If your application is music for Dolby Atmos, Core 256 is simply the perfect Dante and MADI interface. The size and shape of Core 256 fits nicely for sharing a 1U rack shelf with a Mac Mini running Dolby Atmos Renderer, Dolby Atmos Production Suite, or Dolby Atmos Mastering Suite. For immersive audio post-production or music mixing facilities, this solution will represent the missing link that streamlines and optimizes the multichannel workflows seamlessly.

The Ultimate Digital Bridge

That said, Core 256 is of course ready to take on a wealth of other tasks in the post-production, studio and other installed audio spheres. With Dante, MADI and ADAT ports onboard, optional DADlink ports and versatile and flexible DADman routing control available, it is also a stellar D/D converter that can grab any digital audio channel – convert it if needed – and route it anywhere.

Rock Solid Live Music computer IO

If your applications are within live music or stage applications, Core 256 is the ideal interface for back-track playback, instrument playout or effect processing computers. With near-zero latency and high channel count I/O can be managed with ultimate flexibility and reliability.

"Sound Card in a Box"

Core 256 is, to put it simply, your "Sound Card in a Box" and for any application it is perfect as a dedicated audio interface for your DAW, whether you run Logic Pro, Nuendo, Cubase, Pro Tools,

Ableton Live, Digital Performer or any other DAW. Also, for effect processing or virtual instrument playback via Live Professor or Gig performer, Core 256 can be your super low-latency entrance. With the ADAT, MADI and Dante connectivity, you can easily add analog preamps or insert points to the mix.
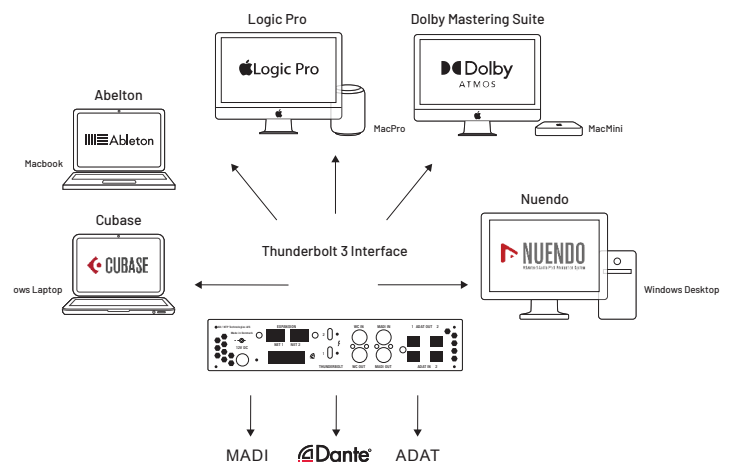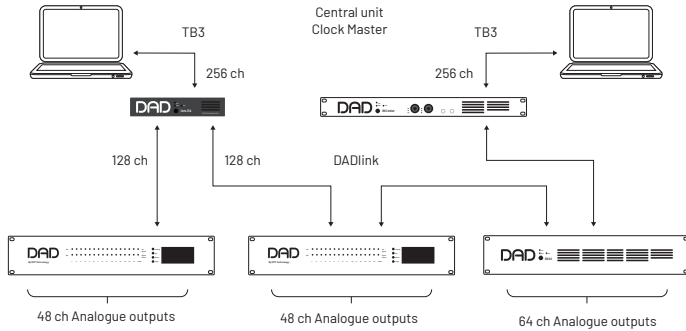
Features

- Thunderbolt 3 I/O (256 channels at 48 & 96 kHz)
- Dante AoIP I/O (256 channels at 48 kHz, 128 channels at 96kHz)
- MADI I/O (64 channels at 48 kHz)
- ADAT I/O (16 channels)/SPDIF (2 channels)
- 512x64 channel Pro|Mon monitor control
- Speaker EQ 128 channel w 16 filters
- 28bit floating point processing
- Avid Eucon enabled devices via DADman
- Apple macOS and Windows compatible software
- Control via Ethernet or Thunderbolt connection
- Word Clock I/O
- 15W power on each Thunderbolt 3 port
- 12V DC external Power max 60W
- 1⁄2 Rack unit 1U high

Control

The AX Center audio interface is controlled via the DADman software. DADman can connect to the AX Center either via Ethernet or via a communication channel in the Thunderbolt connection. More units can be daisy chained via the Thunderbolt connection, and each unit will appear in DADman. Using control over Ethernet the two RJ45 connectors act as a switch for connection to more units. The Dante /AES67 audio is also passed on the two RJ45 connectors.


DAD Link

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Core 256 Router and Processor Engine

19" Rack Mount Bracket

Core 256 can be mounted in a 19" rack using the special DAD bracket. The bracket has a shelf and mounting system for an Apple Mac Mini-computer. This mount provides a power full audio solution with the computer and the Core 256 audio interface.
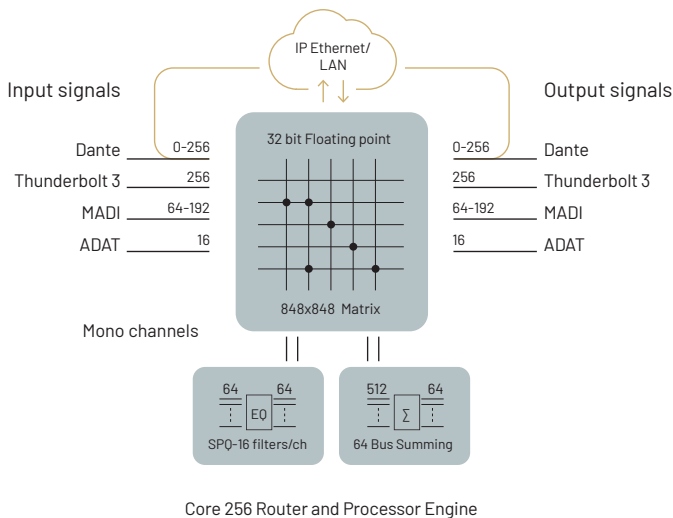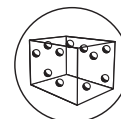

Applications


Live Sound

House of Worship

Immersive Audio

Post & Film

AX64

1,872 input and output channels multi-format modular audio A/D & D/A converter, router, and monitoring interface with:

- 256 channel Thunderbolt 3 I/O
- 256 channel Dante I/O
- 64 channel MADI I/O
- 16 channel ADAT I/O
- 8 slots for optional multi-format DAD I/O cards

- 512x64 channel Pro|Mon summing and speaker EQ processing
- One slot for 128 channel Dual MADI or 256 Channel DADlink module with SFP I/O
- Sample rates supported from 44.1 to 384 kHz
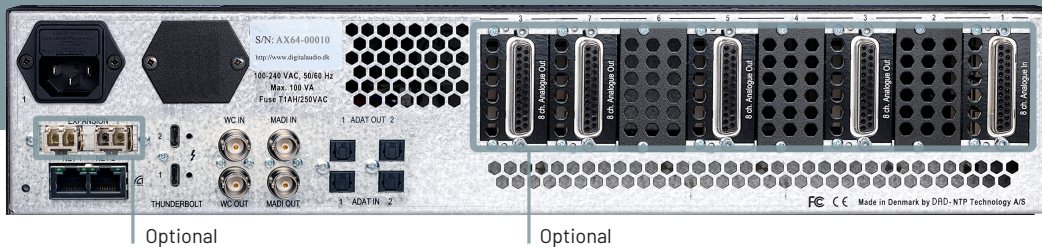
Optional   Optional

Features and specifications

The Thunder|Core-driven AX64 is a powerful and versatile modular multi-format audio interface with 8 slots for the Pristine audio I/O cards known from the AX32 and Penta product family. Up to 8 analogue cards can be installed providing 64 analogue input or output audio channels with well know DAD pristine sonic quality. With tons of channels, a wide palette of digital connectivity, built-in SPQ processing, Eucon control compatibility, internal summing engine and drivers for macOS and Windows, it is a pristine digital audio interface by any measure and for just about any application.
AX64 is the ultimate modular multi-format interface. That said, AX64 is of course ready to take on a wealth of other tasks in the post production, studio, live music production and installed audio spheres. With Dante, MADI and ADAT ports onboard and native interfaces and versatile, flexible DADman routing control available, it is a stellar AD/D, D/A and D/D converter that can grab any digital audio channel – convert it if needed – and route it anywhere.

DAW Interfacing

Another application would be as a dedicated audio interface for your DAW. Whether you run, Logic Pro, Nuendo, Cubase, Pro Tools, Ableton Live, Digital Performer or any other DAW, AX64 can be your super low-latency entrance. With the ADAT, MADI and Dante connectivity, or any combination of DAD card options AX64 can be the audio center pieces of your studio.

Features

- Thunderbolt 3 I/O (256 channels at 48 & 96 kHz)
- Dante AoIP I/O (256 channels at 48 kHz, 128 channels at 96kHz)
- MADI I/O (64 channels at 48 kHz)
- ADAT I/O (16 channels) / SPDIF (2 channels)
- Up to 1024x1024 channels I/O via optional cards
- Up to 256x256 channels I/O via optional module
- 512x64 channel Pro|Mon monitor control
- Speaker EQ 128 channel w 16 filters
- 28bit floating point processing
- Avid Eucon enabled devices via DADman
- Apple macOS and Windows compatible software
- Control via Ethernet or Thunderbolt connection
- Word Clock I/O
- Also available in a version with Dual 110/240V AC Power connection
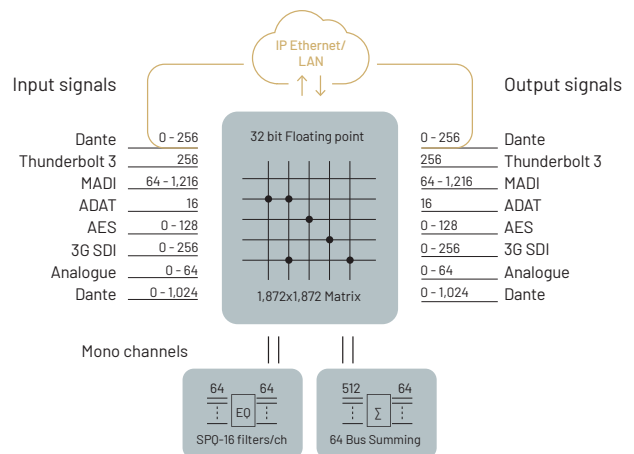
AX64 Router and Processor engine

Control

DADman The Thunder|Core Audio interface is controlled via the DADman software. DADman can connect to the Thunder|Core interface either via Ethernet or via a communication channel in the Thunderbolt connection. More units can be daisy chained via the Thunderbolt connection, and each unit will appear in DADman. Using control over Ethernet the two RJ45 connectors act as a switch for connection to more units. The Dante /AES67 audio is also passed on to? the two RJ45 connectors.
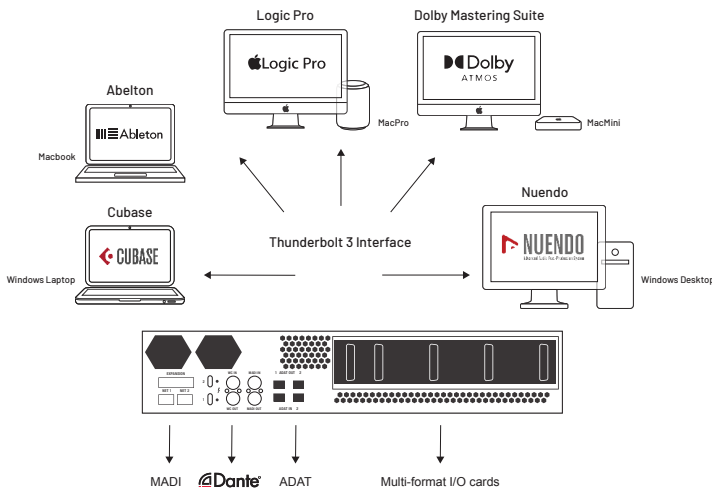
Functionality

The Thunder|Core products have been designed with a unique router core based on 28bit floating point processing and a low latency and highly reliable FPGA based matrix structure, with a time stamp mechanism providing equal latency for all signals routed through the core. The Core AX64 has a total internal capacity of 4,096 x 4,096 non-blocking cross points which provides a capacity of 1,872 x 1,872 cross points on the I/O and processing level.

The matrix provides fixed latency routing of all inputs to one or more outputs with a latency of 7 audio samples and supports sample rates from 44,1 to 384 kHz. The channel processor provides for all input and output channels a signal detection logic, PPM level measurement as well as level control.

All inputs and outputs have processing for level adjustment and the core has additionally a summing/mixing processer with 64 output busses and 512 inputs, which can be allocated to sets of input and output signals managed by the Pro|Mon monitor contol functionality in DADman. SPQ speaker EQ management is natively available in the core with 1.024 filters combined into 128 channels with 16 filters, each with adjustable delay.

Pro|Mon

Pro|Mon Monitor Control is a control layer in the DADman software that enables the Thundet|Core products, as well as current DAD AX32 and Penta products, to work as a comprehensive and extremely flexible and configurable monitor control system, with support for audio formats from mono up to 64 channel theatrical Dolby Atmos and beyond.

Pro|Mon also provides control for speaker EQ, bass management and fold down. The monitor control is managed via the DADman software application, which has support for the EUCON 3 control protocol, enabling full control of the monitor functionality from the Avid control surfaces such as S1, Dock and Pro Tools Control App. Tactile control of the monitoring-functionality can be made using one or more DAD MOM - Monitor Operation Modules.

DAD Expansion Options

AX64 can be installed with up to 8 optional I/O cards and an internal I/O module. These options are also available for DAD AX32 and Penta products. The cards are fully inter-changeable between the products. Future cards for the AX64, however, will not be backwards compatible.

Currently Available Expansion Cards and modules

- 8 ch. Pristine AD Line Card
- 8 ch. Pristine AD Mic/Line Card
- 8 ch. Pristine DA Card
- 128 ch. Dante/AES67 Card w. SRC option on I/O
- Dual MADI Card I/O Card (2 x 64 ch.) with SRC option on inputs
- 8 AES3 I/O Card (16 ch) with SRC option on inputs
- Dual 3G/HD/SD-SDI emb/deembedder Card w. SRC option on I/O
- Dual MADI & DADlink SFP I/O mini-module

Applications

Music Production

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Live Sound

House of Worship
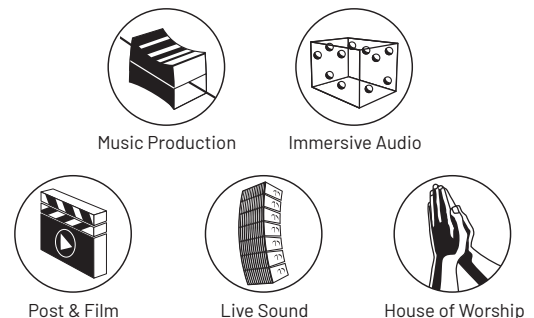
Thunder|Core Technology
Near-Zero Latency Thunderbolt 3 interface

Thunder|Core description

The Thunder|Core interface provides a very fast and stable Thunderbolt 3 connection and data transfer with 2 samples latency on the connection between the audio driver installed on the computer and the interface, and a total of 9 samples in the digital interface, when the EQ, routing and summing processing within the Thunder|Core unit is also included, still preserving 100% absolute phase relationship between all channels.

The channel capacity is 256 audio channels at 48 and 96 kHz, and the latency at 96kHz is 95 microseconds. The total round-trip latency with an audio software application will depend on the buffer size set for the application. With a buffer size of 32 samples, the latency is 670 microseconds (0,67ms) at 96 kHz in the digital domain.

The Thunder|Core interface provides two Thunderbolt 3 connectors which is also compatible with Thunderbolt 4. Connection to the host computer can be made via both connectors. The other connector will then serve as a daisy chain for other Thunderbolt devices, such as more audio interfaces or USB-C products. Both the Thunderbolt 3 connectors provide 15 watts of power for external devices and also for some limited powering of the host computer.

The Thunder|Core interface is in fact implemented as a PCIe device seen from the host computer via the Thunderbolt 3 connection.

Key specifications

- 2 x Thunderbolt 3 ports w. 15W power source each
- 256 bi-directional channels at 44.1/48 kHz
- 256 bi-directional channels at 88.2/96 kHz
- 128 bi-directional channels at 176.4/192 kHz
- 64 bi-directional channels at 352.8/384 kHz
- Control connection for DADman

Certified Thunderbolt 3 implementation

The Thunder|Core interface has a certified Thunderbolt3 implementation which covers the full hardware functionality as well as the driver software for macOS and Windows.

Core Audio Thunder|Core audio driver

- Compatible with Apple Intel and Silicon on Big-Sur and forward
- Core Audio Aggregates for more Applications I/O
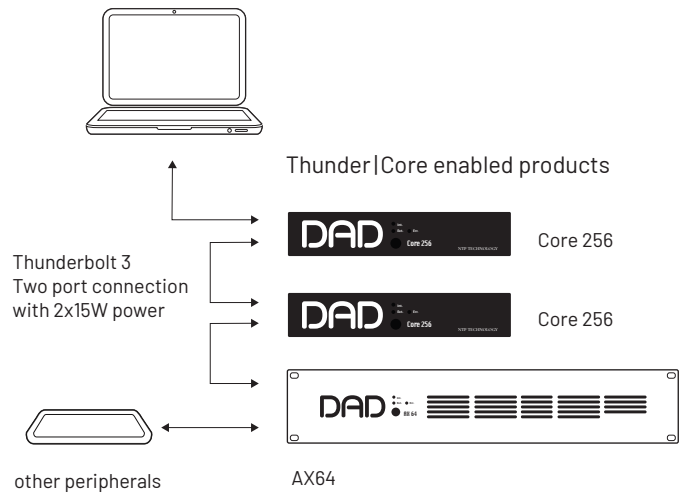- Control connection for DADman

ASIO Thunder|Core audio driver

- Compatible with Windows 10 and forward
- One Application can connect to the driver
- Control connection for DADman

Thunder|Core system

When the Core Audio or the ASIO Thunder|Core DADdriver is installed on the application computer, the audio inteface is identified via the Thunderbolt connection.

More Audio interfaces can be daisy chained and will apper individually in the driver. Up to 6 nodes can be chained. Note that only one interface can be addressed per audio application. However, more applications can access individual interfaces seperately.

Thunder|Core enabled products

Core 256

Core 256

Thunderbolt 3
Two port connection
with 2x15W power

other peripherals

AX64

DADlink

DADlink is a proprietary audio and data format running on optical multimode or single mode fiber via Gigabit optical SFP modules. DADlink establishes a super-fast highway between compatible units such as AX64, AX Center, Core 256, AX32 and more. Depending on the sample rate, you can transfer up to 128 bidirectional channels per link connections between units at zero latency. When two links are used the number of channels is 256.

Sample rates from 44.1kHz to 384kHz are supported and the dynamic range is a staggering 237 dB, ensuring a fast and reliable transfer at the highest audio quality imaginable. In fact, DADlink is not only the fastest track from DAD to DAD units, as some units by NTP Technology are also compatible with the DADlink format including Avid MTRX and MTRX II.

DADlink works with:
• AX64
• AX Center
• Core 256
• AX32
• Penta 720
• Penta 721s

Latest firmware is required.

Sample rates & Channel Counts
The DADlink format supports the following sample rates: 44.1kHz, 48khz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 352.8.8kHz and 384kHz. The maximum number of bidirectional channels to run via DADlink depends on the sample rate you are using - lower samples rates equal higher channel counts.

• 44.1kHz / 48kHz = 128 ch.
• 88.2kHz / 96kHz = 64 ch.
• 76.4kHz / 192k = 32 ch.
• 352.8.8kHz / 384kHz = 16 ch.

Further, also to preserve your valuable audio quality across independent units, phase alignment is applied within the system delay. Normally, this is set to 7 samples, but you can increase it for larger systems.

Zero Latency & System-Wide Timestamps
DADlink transfers happen at zero latency. Of course there will always be some measure of latency, but it has been widely accepted that e.g. 42 microseconds - or 2 samples - latency on the MADI format is referred to as 'near zero latency'. Therefore, we are now going all in just saying 'zero latency', as DADlink provides <100 nanoseconds of latency. This translates to 0.005 samples at 48kHz - or 400 times less latency than on a MADI connection.

Furthermore, the DADlink format ensures transparency for audio time stamps across DADlink-connected units and all output signals in a system with more DADlink connected units will have absolute phase alignment.

DADman
Control software for macOS and Windows

DADman

The DADman control software provides you with a unique control surface running as a stand-alone application on both macOS and Windows computers. With DADman you can configure and set-up your audio interface as well as dynamically control parameters in the units such as level and gain control, monitor control and signal patches and much more.

With DADman you have a very simple and flexible set-up of control connections. In general via Ethernet, but also via the Thunderbolt 3 connection for the Thunder|Core products where then only one cable between the computer and the interface carries both audio and control.

Plug it in, and it just works!

You can connect to any DAD and Penta audio interface as well as the Avid MTRX interface series developed by NTP Technology.

In the DADman control window you can overview all the units you have on the control network, being one single unit or all the units in a whole system. You can furthermore configure one of the connected units with the Pro|Mon monitor control functionality providing extremely flexible monitor control, stems management, speaker management with SPQ EQ and delay functionality and Pro|Mon for low-latency cue monitor outputs. All controls in Pro|Mon can operate via the DAD MOM – Monitor Operating Module as well as Eucon enabled control devices from Avid.

Features

- Complete control of all interface parameters
- A/D Analogue Input and Mic pre control
- D/A output level control
- Routing Matrix control
- Settings configuration
- Control of multiple units
- Flexible Pro|Mon monitor control
- Pro|Mon zero latency mixer
- Speaker management with Eq and delay
- Avid Eucon and PRE compatible
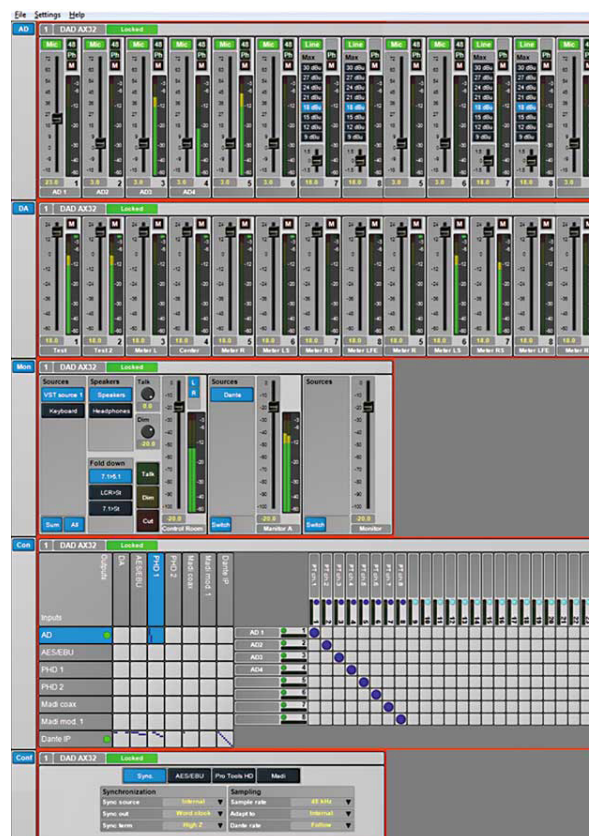
Once you have made the configuration of your set-up, the settings can be stored on your computer for backup even though all settings are always fixed at the actual audio interface after power up. The audio interface will operate in the latest mode set by the DADman software with or without being connected to DADman. All control made via Pro|Mon is mirrored and stored in a monitor profile file stored on your computer.

PRO|MON

The Pro|Mon Monitor Control option enables the audio interface to operate as an audio signal processor providing high resolution signal summing and low latency routing of monitor signals, as well as speaker correction EQ and bass management.

Pro|Mon monitor controller provides ultimate flexibility for any speaker configuration from mono to full 64-channel Dolby Atmos, with speaker processing, delay and configurable monitor groups, and of course Pro|Mon can be controlled remotely and hands-on from our MOM hardware monitor controller, as well as from? Eucon-enabled control surfaces.

You can set the listening levels, Dim and Cut for your main speakers, as well as alternate pairs of studio monitors. Furthermore, you can control level and cut on up to four additional speaker sets.

You can define the signal output configuration for each speaker and monitor set to any format you'd like: Mono, Stereo, 5.1, 7.1.4, 9.1.6, and multi-channel up to 64 channels and beyond, using any of the audio outputs on your interfaces in any combination.

The sources for monitoring can be selected from any of the configured signal sources. Then you can route to a monitor output as switched, or more sources can be summed to a control room speaker or monitor output providing Stem summing functionality.

Talk back functionality is available for any of the control room speakers and monitor outputs, and the talk back can activate Cut or Dim on any output as well.

On each of the control room speaker and monitor outputs a Fold down function can be applied. The Fold down can include - any of of the formats: Mono, Stereo, Left-Center-Right, Left-Center-Right-Sub, 5.1, 7.1 and 9.1.6 surround formats on both the source and speaker and monitor outputs.

Highlights
- Monitor controller with talkback, summing, fold down and Speaker up-match
- Support for all immersive audio formats, including Dolby Atmos in all configurations
- Configurable for any audio format e.g. mono, stereo, 5.1, 7.1.4, 9.1.6, and up-to 64 channels or more
- Pro|Mon management of separate monitor groups for stems or separate cues
- Control via the DAD MOM - Monitor Operating Module
- Control via EUCON from Avid control surfaces
- Speaker Processing and Bass Management via the SPQ Speaker Processor

SPQ

The SPQ feature can be configured to various filter characteristics and channel layouts.

SPQ supports all the system sample rates and will reconfigure automatically and fast when sample rates are changed, with equal filters and delay independent of the sample rate. Delay can be set individually per channel as well as generally for a whole set of speakers to also accommodate lip-sync applications.

The SPQ setting is stored in the Pro|Mon monitor profile in DAD-man, and speaker settings can be recalled separately from stored monitor profiles for fast change of parameters and even moved between units. Measurement of the speaker curves and frequency responses must be done using a separate measurement program, as this is not a part of the SPQ functionality.
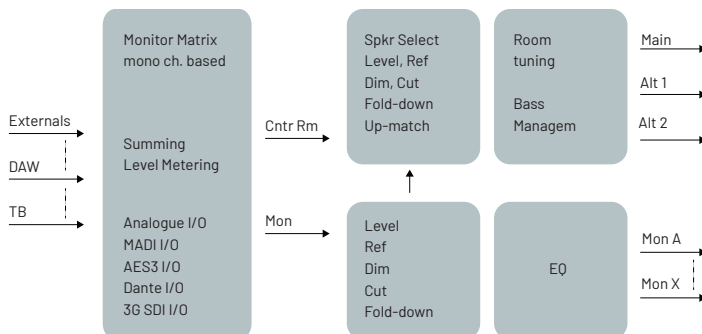
Speaker / Cue channel filters

- Parametric EQ
- Low Shelving
- High Shelving
- Low Pass Butterworth
- Low Pass Linkwitz-Riley
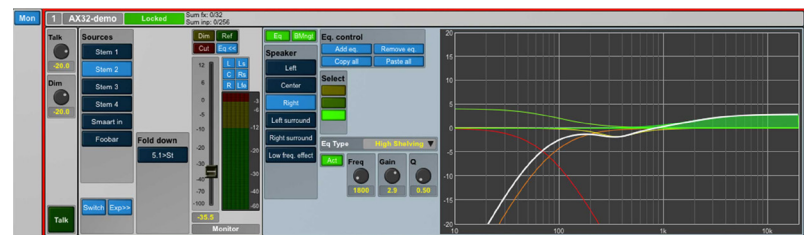- High Pass Butterworth
- High Pass Linkwitz-Riley

Bass Management Filters

- Low Pass Butterworth
- Low Pass Linkwitz-Riley
- High Pass Butterworth
- High Pass Linkwitz-Riley

Control room & Monitor outputs

Mono - Strero - 5.1 - 7.1 - 9.1 - 7.1.2 and up-to Dolby Atmos 64 channels

MOM
Monitor Operating Module

DAD MOM is the perfect, tactile match for controlling the Pro|Mon monitoring functionality in any of the DAD or Penta products as well as the Avid MTRX interface series.

The MOM is a remote control, connected via Ethernet, and no audio is actually passing through the unit. The audio-routing magic happens within the audio interface being AX Center, Core 256, AX64, AX32 or Penta and is set up via the DADman software. But once you connect the MOM, the magic now resides right at your fingertips.

Expected Features

MOM will give you everything you would expect from a first-grade hardware monitor controller:

• Large Top-Quality Rotary Knob
• Switching Between Different Sources
• Switching Between Different Monitor Configurations
• Mute Individual Monitor Channels
• Talkback, Dim, Cut, Reference Level

The Unexpected Feature

We never settle for 'the standard solutions' and MOM is no exception to that rule. So there is one feature - and knob on the control surface - that is unique to MOM.

The LAYER function allows you to tailor several different roles in the configuration settings within the DADman software.

Now, why would you want that? Well, even though some of the knobs are labeled - and setup by default - to select speaker sets and sources, you can alter what functions they should control freely. Imagine having up to 4 different versions of this controller - each tailored for specific tasks within your production workflow - which you can switch between in seconds.

Another useful application for the layers is for large production rooms where many engineers share the controller. Now, each could tailor their own preset that suits them perfectly. Or if an external producer or director should attend mixing or tracking sessions. Then you could add more MOMs to the room and assign different 'user roles'. Not everyone has to be able to control the Master Volume.

General Description

MOM is the perfect companion if you use the monitor controller capabilities of the AX Center, Core 256, AX64, AX32, Penta 720 series and the AVID MTRX series developed by NTP Technology.

MOM is a remote control for the Pro|Mon monitor profile in the DADman control software. It features 10 user-programmable keys, a rotary encoder and a GPI input for an external switch. You can assign almost any function in the monitor profile to any key on the MOM, making it easy to configure for your specific needs. Furthermore, MOM offers 4 layers of keys, offering a total of 40 programmable keys.

Weighing in at 2 lbs., the MOM is sturdy and will remain in place while also being compact enough not to take up valuable desk space. The rotary encoder for volume control has been carefully designed for superb tactile feel and features colored LEDs to indicate the volume setting in 0.5 dB steps.

While working perfectly fine in combination with the DADman software, its real power is revealed when used in combination with Avid Eucon control surfaces and even the free Avid Control app, as MOM-operation is synchronized with these units. Simply select e.g. a source on the Dock and the corresponding key on the MOM will light up, and vice versa, what you do on the MOM is also reflected on e.g. the Avid Dock.
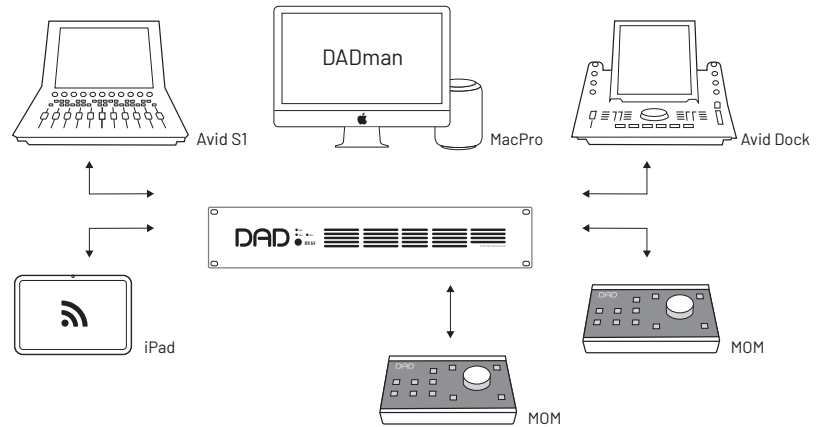
And not only can you use MOM in combination with Eucon control surfaces, but you can also use multiple MOMs on the same system. This can come in handy if you have multiple workspaces or listening positions, e.g. a sound engineer and a director position, as you can place the MOM wherever it is needed.

MOM also features a GPI input, which can be used for an external switch, e.g. a footswitch or a separate switch on the desk. The function of the GPI input can be programmed just like any of the keys.

You can power MOM either through PoE making the installation very easy, or from a supplied power adapter.

Made in Denmark, the MOM also features a sleek and stylish design that will look amazing in any studio.

Golden workflows

Bridging Music and Technology

DAD – Digital Audio Denmark

As the name implies, we're all about digital audio - and we're from Denmark. We were originally rooted in AD/DA conversion, which of course also has an analog dimension, so analog microphone preamp technology quickly became part of our repertoire - and it still is.

Later, comprehensive digital audio routing grew to become a core part of our products and today, the combination of these things has merged into true center piece units that aim at providing you with the tools you need to get the highest possible audio quality into the digital domain - and then allow you to distribute your audio streams to any destination you want.

When DAD was acquired by NTP Technology that has a long history within audio routing, the combination of these things has merged into a product line of audio interfaces that aim at providing you with the tools you need to get the highest possible audio quality into the digital domain - and then allow you to distribute your audio streams to any destination you want with powerful routing.

DAD – Digital Audio Denmark is a wholly-owned business unit and brand within the company NTP Technology A/S. But more importantly, we love two things more than anything: Great Sound and Flexibility. Therefore, regardless of which product, technology or overall concept you find here, it will always tap back to one or both of those two things.

But What Is Great Sound?
Well, in any capturing or reproduction of audio there are dozens of links in the signal chain that affect the overall quality of the end result. But in an increasingly digitized world of audio, conversion between the analogue and digital domains has also become increasingly critical.

And AD/DA audio conversion is carved deeply into our DNA. That was where it all began, and we truly believe that we deliver world-class AD/DA conversion.

And What is Flexibility?
To us, flexibility in audio has everything to do with great workflows. Once in the digital domain, our solution can be just very simple set-ups with a few channels, or it can be a distribution matrix of up to 1,500 x 1,500 audio streams. You can send any channel as mono from anywhere to anywhere, or you can couple channels for stereo, surround sound formats and comprehensive stems.

We believe that our products will help you design studios, record solutions or mobile and live production systems with such flexibility that you can create, and not least switch, between very different workflows in a way that will make your professional life easier.
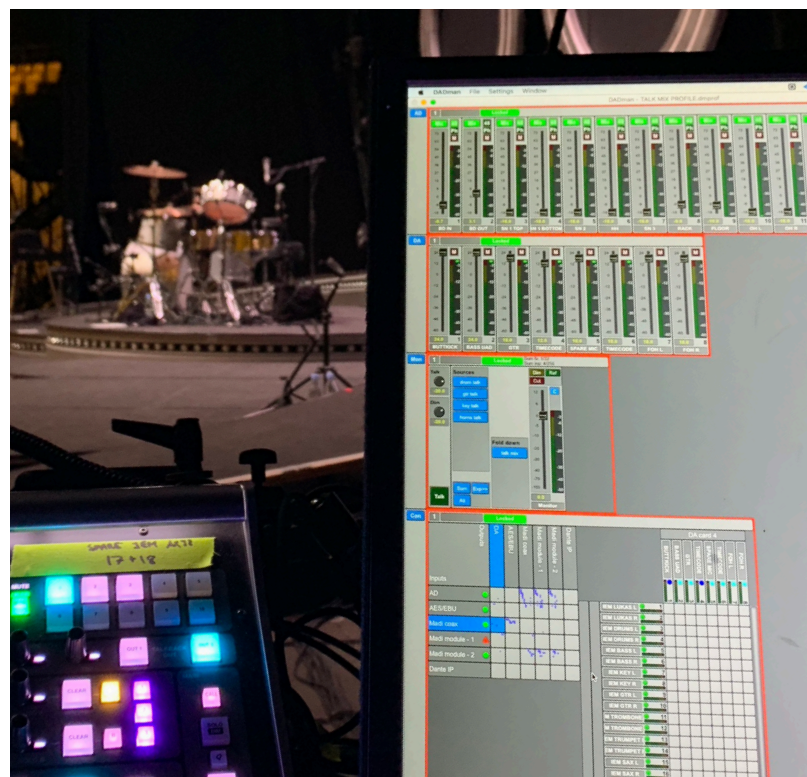
NTP was founded in 1958

Since 2003 NTP Technology has been a member of the Dan Technologies A/S group of companies based in Denmark. NTP Technology develops, manufactures, and distributes professional high reliability Audio I/O solutions and router infra structure for analogue, digital and embedded audio routing systems for major radio and television broadcasters world-wide. In 2008 NTP Technology acquired DAD – Digital Audio Denmark, a Danish manufacturer of high-end Audio AD/DA converter interfaces, and the merging of the two companies formed the NTP pro audio product line sold under the DAD brand name.

Top quality, innovative technology and perfection in performance are the reasons that NTP Technology has been a preferred supplier for the broadcast industry for more than 30 years. With a continuous focus on new technologies, creative implementations, and customer needs,

NTP Technology will continue to hold a significant position also in the future landscape for audio I/O and routing solutions. With this approach, NTP Technology provides smart I/O and router solutions for any application - being in Broadcast, Music Production, Location Recording, Immersive audio, Post & Film, Mastering, Live Sound, House of Worship, Music Production, Location Recording, Immersive audio, Post & Film, Mastering, Live Sound or House of Worship.

Made in Denmark

In NTP Technology we have a very strong focus on product development based on advanced integrated technologies, and on top of that we have a legacy of "over the top" design of analogue circuitry with no compromises on transparency and sonically pristine quality. Our manufacturing is done in Denmark with a high focus production quality. The high quality comes from careful consideration during the design phase, and all printed circuit boards assembled on fully automated SMD machines by our sub-contractors only using the latest technology within assembly and intelligent quality screening. Assembly and test is done in-house at the NTP facility in Gentofte near Copenhagen, with great care for the quality and indeed the whole testing process. All the manufactured interfaces are individually tested in a full performance test making sure that all parameter 100% in place.

DAD
BY NTP TECHNOLOGY