## TRINITY Universal High Definition Master Clock

In the fickle world of Audio \& Video formats, the new Trinity will be the Master Clock that stands out from the crowd for years to come, with the kind of features that other manufacturers can only aspire to. With dedicated functions and controls, The new Trinity is the best sounding and most versatile Master Clock available anywhere. There are unique features that are only available on the Trinity - such as Audio up to 384 kHz , Varispeed, Nine completely independent generators, and a Triple display! Of course, all of this comes in an intuitive menu-free user interface, just as you would expect from Antelope.


## OVEN CONTROL

The crystal oscillators in the Isochrone Trinity are housed in a temperature controlled oven, as commonly used in military and satellite communication. This keeps the oscillator at a constant temperature making the Isochrone 100x more stable than similar products.

## BRAND NEW 64 BIT DESIGN



Trinity is the culmination of many years of clocking knowhow from the designers at Antelope, and is a brand new design with more design integration which leads to an even tighter and more focused sound quality. The 4th generation of Acoustically Focused Clocking with 64 bit DDS plays a major role in why Trinity makes your converters sound even better than ever. AFC is a hybrid of advanced engineering and exhaustive listening tests designed to deliver extraordinary sound.

## ATOMIC CLOCK

The Isochrone Trinity can be locked to the most accurate clock on Earth: the Atomic clock. A studio can truly achieve perfect stability with the power of Atomic Clock, and only Isochrone clocks are capable of locking to this unprecedented technology.

## LATEST GENERATION GEARBOXING

Put anything in, get anything out. Already used on OCX-V, this feature has been upgraded to cover all the formats that Trinity has to offer. Gearboxing can even be switched off with Trinity for those occasions when the source is known to be nonstandard. Very versatile!


## CUTTING EDGE VIDEO

Now that HD video has become a common standard, we decided to include not one, but three HD generators in Trinity. Whether you are locking to, or generating video, HD, PAL and NTSC are all available simultaneously whilst of course being perfectly in sync. Each HD channel has 2 outputs, but it's possible to set all three HD generators to the same format thus giving 6 physical outputs. Once again, very versatile!

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## VARISPEED AND SAMPLE RATES



New for Trinity, it is now possible to varispeed +/200 cents. If you prefer, it can be adjusted in percent. The sample rates have also been upgraded and now go from 32 kHz to 384 kHz . Standard pull-ups/pull-downs plus varispeed means that virtually any rate can be dialed in.


## USER FRIENDL I INTERFACE

With all these features you might think that Trinity is difficult to use. Well, no. Just like all other aspects of Antelope design, usability is very important to us. No nested menus, or unnecessary button pushing. Just easy and clean design that helps professionals get the job done with the minimum of fuss.

## USB CONTROL

With all the options that Trinity has to offer, we thought that remote control via USB would be a very good idea. The connection is USB 2.0 fullspeed and allows full control via PC or Mac. Firmware upgrades are also allowed via this connection.


#### Abstract

JITTER SPECS? We often get asked "What are your jitter specifications?". Well, thanks to our Oven Controlled and Atomic technology our jitter specifications are better than other similar devices. More importantly however, our unique techniques for dealing with jitter through our Acoustically Focused Clocking improves the sound a lot further than any jitter specifications may suggest. Now in it's 4th generation for Trinity, AFC plays an important role in why Trinity improves the sound of your converters more than ever. Take a look at the reaction of Carlos Castro after listening to Trinity for the first time.... http://uk.youtube.com/watch?v=DP-jNMPsH9g


## GENERATORS FOR DAYS WITH TRINITY

With nine completely independent and simultaneous generators, Trinity will get the job done. All this functionality makes possible tasks that would normally require multiple units of other devices. In one box, Trinity will save you time. Imagine! One pass with multiple frequencies and formats of virtually any choice, all running in perfect synchronization. Well, imagine no longer, because it's truly possible with Trinity.

## PEACE OF MIND

Clocking is a critical task, and should never be confusing. With straightforward controls dedicated to specific tasks, warning lights for critical errors, extensive termination diagnostics and a highly visible, accurate frequency display, operating status is apparent at a momentary glance. Never before has such a powerful device been so easy to use.

## TECHNICAL SPECIFICATIONS

- 4th Generation of Acoustically Focused Clocking employing 64 bit DSP leads to a new level in detailed \& focused sound.
- Oven Controlled Crystal Oscillator or Atomic input for supremely low jitter.
- Factory calibrated to better than +/- 0.001 ppm accuracy.
- A wealth of rear panel connectivity for tremendous flexibilty
- Comprehensive audio gearboxing for anything in, anything out
- Atomic input for ultimate performance
- 3 Independent \& simultaneous audio generators up to 384 kHz , and varispeed control +/- 200 cents.
- 3 Independent \& simultaneous HD generators, covering 16 formats
- 3 Independent \& simultaneous SD generators, simultaneously offering PAL \& NTSC
- Full Euro and USA Pull-ups / pull-downs for SD and HD video.
- USB connection via PC \& Mac allowing full remote control, loading/saving presets and firmware upgrades.
- Dual redundant power supply with automatic switchover for added reliability


## Front Panel

1
Power Switch
2 AC/DC Power Indicators

| 6 | Audio Chanel Edit Select Buttons | $\mathbf{1 2}$ | USA pull up/pull down (+/-0.1\%) |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{7}$ | Triple Display | $\mathbf{1 3}$ | European pull up/pull down $(+/-4 \%)$ |
| $\mathbf{8}$ | DIMMER Knob | $\mathbf{1 4}$ | Status LEDs |
| $\mathbf{9}$ | HD Select Encoders | $\mathbf{1 5}$ | INFO Button |
| $\mathbf{1 0}$ | VARISPEED Select Button | $\mathbf{1 6}$ | HD Pull Down Select Buttons |
| $\mathbf{1 1}$ | SPLIT Mode | $\mathbf{1 7}$ | SD Video Select Button |



## Rear Panel

| 18 AC Power Socket | 24 VIDEO Input | 31 | S/PDIF Output |
| :---: | :---: | :---: | :---: |
| 19 DC Power Connection | 25 Word Clocks Outputs 1 to 6 | 32 | Word Clocks Outputs 1 to 4 |
| 20 Word Clock Inputs 1\&2 | 26 AES/EBU Outputs 1\&2 (male) | 33 | AES/EBU Output (male) |
| 21 AES/EBU Input | 27 S/PDIF Outputs 1 \& 2 | 34 | S/PDIF Output |
| 22 S/PDIF Input | 28 256x Word Clocks Outputs | 35 | USB |
| 23 Atomic Input | 29 Word Clocks Outputs 1 to 4 | 36 | HD Video Outputs |
|  | 30 AES/EBU Outputs (male) | 37 | SD Video Outputs |



