



DARK 22M

Highlights

The DARK 22M is a high specification device that interfaces between analogue and Dante network audio.

The 2 x mic line inputs and outputs allow for stereo or 2 x mono links across copper or fibre Ethernet, and the inputs feature the Clarke Reference mic amp design.

The DARK22M features a Dante Brooklyn 3 module, with 1GB network interface and the ability to happily act as the master clock on a large network. So although the DARK 22M is low channel count, it has high specification networking not normally found at this level.

Overview

- 2 x XLR input, 2 x XLR output
- Inputs mic/line/48v switchable with Clarke Reference mic amp design
- Copper and fibre network connections (1GB)
- Double network redundancy
- Local and remote control
- PoE or local power
- Bi-directional USB-Dante interface
- Screw down or rack mount




Glensound
 Keeps Working



DARK22M Network Audio Interface Features



Analogue Inputs & Outputs

Two analogue inputs and two analogue outputs presented as full size 3 pin XLRs, The mic inputs are independently selectable mic/48V/line. So the DARK22M is more like 2 x 1 channel interfaces as each side can be configured separately. A dynamic mic input on input 1 and a phantom power mic on input 2? No problem.

USB Inputs & Outputs

The DARK22M is also a bi-directional USB to Dante converter too. This will happen in parallel to the analogue audio connections. It can also be set as a bi-directional USB to analogue converter. The addition of USB C really adds useful options.

Audio Processing

Where the DARK22M really sets itself apart is in audio performance. You see, it started life as the DARK8MAI – an 8 channel mic amp. This means that the resources of the DARK8MAI are still available – namely an 8 channel analogue to digital converter. Glensound's design engineer Alex Clarke was able to utilise these ADC channels in a rather clever way. By sending each input equally across 4 x ADC inputs, then combining them in the ADC. When you divide by four, you end up with the same level, but the noise cancels out, resulting in a much improved signal to noise ratio and dynamic range. This has resulted in the mic inputs on the DARK 22M being just about the cleanest and brightest of any network mic amp available.

Further DSP Options

As a DSP device, further dynamics are available. By default, it includes Glensound's well known Referee compressor system. This is a compressor curve that only affects the audio input just prior to clipping. A graduated compressor, that is much subtler than a hard limiter, but with the benefit that it will prevent the input from clipping. Further DSP is available for a wideband compressor, a high pass or low pass filter, mixing the inputs to one output, for example. These are not standard features but can be customised on order dependent on your particular requirement.



DARK22M Network Audio Interface Features



Network Connectivity & Redundancy

Network options on the DARK 22M are also very powerful. There are a primary and a secondary ports on copper RJ45 sockets, and, primary and secondary ports via your choice of SFP fibre modules. The SFP ports allow all choices of single mode, multi mode, or single fibre bi-directional modules. These can be configured in redundant mode, or a switched mode, basically turning the connections into a 4 port switch that can be used for daisy chaining other network devices.

Network Interfacing

Typically with low channel count units, devices are fairly basic, and in the Dante world this would mean the basic Ultimo module, and the associated limitations of a 100MB network interface. This is fine on entry level units, but the DARK22M is not an entry level unit. The DARK22M features the full fat Brooklyn 3 module, with 1GB network interface and its ability to happily act as the master clock on a large network. So although it is low channel count, it has high specification networking not normally found at this level.

Control

The input type and gain level can be set directly on the unit itself. The DARK22M is also part of GlenController, the Glensound remote control app. This means input type, input gain, and level monitoring is available via remote control.

The DARK22M uses UDP for remote control and the command list is available. This means if you are using a dedicated control app that can generate UDP commands (and most can) then your choice of remote will also be able to control the DARK22M.

Power Options

Power supply is also well catered for with PoE available on both copper ports or a locking USB C, allowing the use of USB C battery packs or plug top supplies. There is management of power allowing silent switching between the different power options.



USB Audio

The USB C port also introduces USB audio. The DARK22M is also a bi-directional USB to Dante converter too. This will happen in parallel to the analogue audio connections. It can also be set as a bi-directional USB to analogue converter. The addition of USB C really adds useful options.

Mechanical Design

The flexibility of the DARK22M concludes with the mechanical design. It is in a very strong casing, with custom designed front and rear bumpers. This allow for flush mounting under a desk or the side of a rack, cable tying for an emergency job, or simply removing them and rack mounting up to 3 together in a 1u 19" rack.



DARK22M Network Audio Interface Dante Controller

Dante Controller

Dante Controller is a free software application that enables you to route audio and configure devices on a Dante network. With automatic device discovery, one-click signal routing and user-editable device and channel labels, setting up a Dante network couldn't be easier.

Dante Controller is much more than just a configuration and routing matrix. Dante Controller provides essential device status information and powerful real-time network monitoring, including device-level latency and clock stability stats, multicast bandwidth usage, and customized event logging, enabling you to quickly identify and resolve any potential network issues. You can also quickly and easily backup, restore, move, and reuse Dante network configurations using Presets, and edit Dante routing configurations offline.

Dante Controller is available for Windows and Mac OS X.



Features

- View all Dante-enabled audio devices and their channels on the network
- View and edit device clock and network settings
- Route audio between devices, and view the state of existing audio routes
- Rename devices and channels using your own friendly names
- Customize the receive latency (latency before playout)
- Save and reapply audio routing presets
- Edit presets offline, and apply as configurations for new network deployments
- Change sample rates and clock settings
- View multicast bandwidth across the network
- View transmit and receive bandwidth for each device
- View device performance information, including latency stats, clock stability stats and packet errors
- View comprehensive, configurable event logs

Dante Controller is available free from www.getdante.com