



GAME - TEAM - ME

GTM
eSports Interface

Highlights

The GTM combines the multiple functions required for the interfacing and communications required in eSports tournaments into one simple to use device.

GTM provides the interface for the gamers, provides the intercom mix, and allows remote control by tournament engineers. There are separate modes that also mean the GTM can be used by the Coaches, Referees, and arena Announcers.

There is a Background Noise Guard to preserve the integrity of the game by reducing the background noise when the mic is not being used.

The GTM is also available in a stripped down version, with no direct top panel controls, for system integrators.

Overview

- Single user eSports interface
- Multiple headset connection options
- Provides the team group mixes
- Allows referee interfacing and control
- Full Remote & Monitoring Using Windows 10/11 App GlenController

Monitoring Sources



Top Panel Mixer

The top panel contains three level controls for the user to adjust their desired mix into their headphones from the following sources:

- GAME:** This is the stereo level of the game audio
- TEAM:** This is the overall level of the team comms channel
- ME:** This is the level of the users own voice in their headphones

Large controls allow for quick and easy adjustments and a multicolour LED ring around the control indicates the level position

Each control is also a push button that can be used for future developments.

Top Panel Buttons



There are two top panel push buttons which route the microphone input to a Dante/AES67 output.

These can be configured in the following modes:

**Intelligent,
Latching,
Always ON,**

**Momentary
Cough/mute
Always OFF**

Game Audio Source



For compatibility with multiple tournaments and gaming platforms, there are 5 options of sources for the stereo game audio on the rear panel, which are routed to the GAME headphone level control.

Local Stereo Sources

SPDIF AUX IN USB

A stereo digital optical TOSLink connection
 An analogue stereo input on a 3.5mm (1/8") jack socket
 Stereo USB audio input on a mini USB connection

These local sources are also sent onto the Dante/AES67 network

Multi Channel Mix Sources

DANTE

From the Dante/AES67 network there are 3 stereo inputs available. These can be mixed to 2 channel stereo using the separate GlenController Remote app. Each stereo pair also has a balance control.

Typically only a single stereo pair is used for the game audio, but the further inputs allow for future options and flexibility.

HD-SDI (option)

The optional HD-SDI connection is de-embedded to provide 4 pairs of stereo audio sources. These can be mixed to 2 channel stereo using the separate GlenController Remote app. Each stereo pair has a balance control.

Typically only a single stereo pair is used for the game audio, but the further inputs allow for future options and flexibility.

The HD-SDI signal is looped out so the GTM can be used inline of the video signal.

Team Control

The top panel TEAM pot adjusts the level of the Team Group Mix to the user.



The GTM has an internal mixer that generates a team group mix between all members of the same team. This allows all members of the team to be able to communicate with each other.

There is a multi input, Dante/AES67 mixer controllable via GlenController that sets the levels of all audio being mixed to the GTM TEAM pot of 1 of 7 teams. Typically this is just a mono mix of the 6 other team members but there are also further sources available:

Stereo Mix Sources (Dante/AES67)

GAME EXTRAS

The game audio/mix is also available in the team mix
There are two stereo sources

Single Channel Mix Sources (Dante/AES67)

PLAYERS

The other 6 members of the team can all be mixed in separately and panned if required.

COACH

The coach of each team can also be mixed in to be part of the group team mix.

REFEREE

If required, the referee can be mixed in to be part of the group team mix.

EXTRAS

There are two mono sources



Front Panel Connections



There are options of connections on the front panel for the user of the GTM

Headset Connection - 3.5mm (1/8" jack socket) TRRS

This allows connection of a typical gaming headset using a single jack for the headphones and microphone. 2.5v or 5v bias can be selected.

Mic Input - 3 Pin XLR

For connecting a professional broadcast grade microphone using a separate 3 pin XLR plug. The input is dynamic with selectable 48v phantom power

Headphone Output

The headphone output is available in parallel via a 3.75mm (1/4") and a 2.5mm (1/8") jack sockets..

Two Headphone Amplifiers

The two headphone outputs and the headset output use independent headphone amplifiers. The game audio and/or pink noise can be mixed to each output independently. See the remote control page for further info.

Rear Panel



Connections

Sources

The multiple input sources for the game monitoring are available via the rear panel. The input source can be selected via the push button. This can be locked to prevent local access if required.

Mic Gain

The mic input gain can be adjusted via the rear panel pushbuttons. This can be locked to prevent local access if required.

Phantom Power & Bias

48V phantom power can be selected, or if using the headset, 2.5V or 5V bias can be used.

Network Connection

Two network connections are available so a redundant network can be available if required for backup. The GTM is powered via PoE from the network switch or via a midspan PoE injector.

HD-SDI (option)

The HD-SDI input is looped through, so the GTM can be used inline of the video signal. HD-SDI is an option and not on the standard GTM.



GlenController Remote Control

The GTM is controlled via GlenSound's Windows 10/11 remote control application, GlenController. This is a comprehensive controller with many monitoring, selection, and mix functions. Highlights of GlenController for GTM include:



Adjust the incoming microphone gain via the XLR or headset connection. The GlenSound Referee compressor is automatic and prevents clipping, but a further multi stage compressor can be added to balance the audio signal. A meter will show real time input level.



There is a Background Audio Guard that reduces background noise levels by up to 40dB when the player is not speaking. This prevents potentially advantageous audio entering the system and being shared for competitive advantage.

All push buttons on the unit can be locked for security.



The position of the headphone level controls can be monitored and adjusted, and each of the 3 audio sources can have the balance level controlled.

The operation of the push buttons can be adjusted.

The audio routing to the headphone jacks can be routed between the programme audio or the pink noise signal.

The mixing of the sources for the game audio can be adjusted.



The mixing of the sources for the team mix can be adjusted.

The role of the GTM can be set as player, coach or referee. The LED lighting and functions of the GTM will alter for the given user profile.



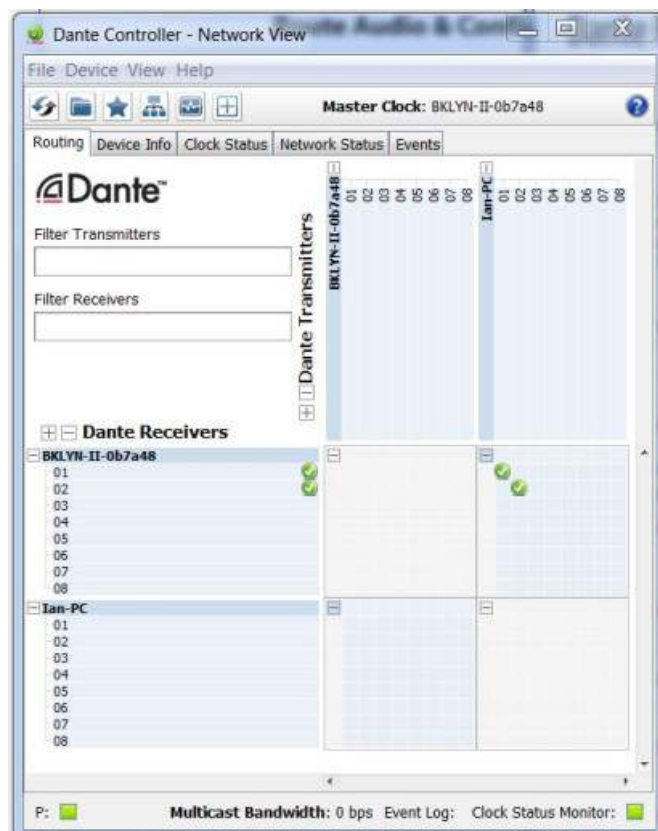
Custom channel names can be set and will update to Dante Controller

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.audinate.com

Specification

AUDIO

Mic Input Gain Range

60 dBu

Phantom Power

48v

Equivalent Input Noise

124 dBu (residual @max gain 150 Ohms)

Headphone Impedance
16 to 1000 Ohms
(Auto output level to match impedance)
Maximum Headphone Output

+14.5 dB into 600 Ohms

Headphone Connector
Main HP output on 6.35mm TRS or 3.5mm TRS
Headset output on 3.5mm TRRS
Band Pass Filter

20Hz-22kHz

White noise generator
Can be present on either HP output.
Configurable in software

Additional Audio Inputs

Game input sources

Stereo Aux, USB, Optical, Dante, 3G-SDI

NETWORK

Dante

Yes Primary & Secondary with Broadway IC

AES67 Compliant

Yes

SMPTE ST-2110-30 Compliant

Yes, using Dante Domain Manager

Copper Ethernet

2 x Neutrik EtherCON connectors

Fibre Ethernet

No

Audio Sampling Frequency

48kHz

Transfer Rate

1000 Mbps

Resolution

24 bit

POWER

PoE
May be powered by the PoE network port
Complies to: IEEE 802.3af-
Classification Class 0
Consumption

<15 Watts

PHYSICAL

Size

135 x 162.5 x 76 mm (WxDxH)

Weight

0.4Kg

Mechanics
All aluminium construction, anodized and
laser etched, powder coated sides

ENVIRONMENTAL

Operating Temperature

0 to +50 °C (32 to 122 °F)

Storage Temperature

-20 to +70 °C (-4°C to 158 °F)

Relative Humidity

0 to 95% non-condensing

INCLUDED ITEMS

Handbook

Available by download

RJ45 Network Cable

2 metre Cat5 RJ45plug /RJ45plug cable