

## To readers

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Dear customer, we would like to express our heartfelt thanks to you for using ITC speakers. All products of our company have been rigorously tested before leaving the factory to keep the quality promise. Speaker, widely used in hotels, commercial buildings, supermarkets, schools, leisure and entertainment, is your ideal choice. Please read this instruction in detail to better install, debug and use it.

## Safety instructions

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- Please read this instruction in detail before use.
- Pay attention to the safety symbols and important warnings in this manual.
- It is recommended that you keep this manual for future reference.
- Because the module has a built-in processor, please do not turn the machine on and off quickly. After shutting down, reboot only when the power indicator light completely goes out.

### Common safety symbols and warnings

The safety symbols and warnings shown in this manual are to avoid personal injury and property damage caused by improper operation. Please read this manual in detail before usage. Please be sure to understand the various safety symbols and warning signs for full understanding of the potential danger.



#### Warning

Improper use might cause personal injury, death and property damage.

### During installing

- Never expose the speaker to anywhere that is or might be rainy, wet for no electric shock or fire.
- Please strictly follow the voltage specified on the speaker, since voltage higher than the limit may cause electric shock or fire. Never trim, twist, break, or replace wires.
- Do not install or erect speakers in unstable places, such as shaking tables or uneven surfaces, to avoid personal injury or property damage when the speakers fall.
- Install the speaker at the place where it can support the weight or on a stable bracket, to avoid personal injury or property damage when the speakers fall.
- Never plug or unplug with wet hands, otherwise, it may cause electric shock.
- When unplugging, make sure to pull the plug instead of the wire. Damaged wires may cause fire or electric shock.
- When moving the speaker, please pull out the plug in advance. Moving the speaker with the plug may cause fire or electric shock. When unplugging, make sure to pull the plug instead of the wire.
- Do not cover the vents on the speakers, otherwise, it may cause internal heating and fire.
- Avoid a place where it is wet or dusty, directly in contact with sunlight, near a heater, or where there is black smoke or steam, otherwise, it may cause fire or electric shock.

# itc

## Professional Active Speaker

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### TS-612DT

## OWNER'S MANUAL

## Feature

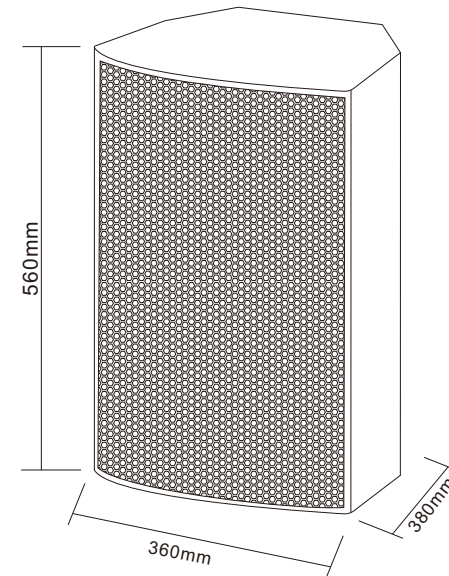
Adopt a 12" medium woofer unit and a 1.7" ring polyethylene diaphragm compression treble unit; The box is made of 15mm splint, light weight, wear-resistant spray paint treatment, external dust screen cotton; The precise design of the frequency divider to optimize the performance of the voice part of the intermediate frequency; The whole series is equipped with efficient high-power power amplifier module, equipped with powerful DSP audio processor, can be used according to different applications of the system for comprehensive parameter setting, and equipped with 6 parameter balancing, with frequency division, delay, amplitude limiting functions. Multiple screw lifting holes, a 35 mm diameter post socket, a variety of installation methods.

Scope of application: It can be used together with the TS front effect processor to form a set of high-end entertainment conference sound amplification system with outstanding vocal performance, which is suitable for the main sound amplification and complement of various high-end conference rooms and multi-function halls.

## Technical Specification

Model	TS-612DT
Rated power	350W
Impedance	4Ω
Sensitivity	99dB/W/M
Frequency response	50Hz-20KHz
Coverage angle	(H) 80° (V) 60°
Speaker unit	1.7" compressed tweeter × 1, 12" woofer × 1
Line input sensitivity	0dB
Dimension	560 (H) × 360 (W) × 380 (D) mm
Weight	21.8 Kg
THD	≤1%
SNR (A weighting)	≥90dB
Protection method	Overcurrent protection, DC protection, short circuit protection
Indicator light	Power, signal, distortion
Power supply	~220V/50Hz

## Dimension



## Parameter module

**TS-612DT**

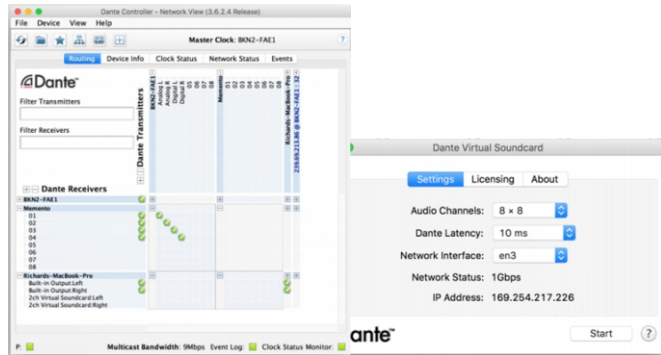
**FREQ RESP: 50HZ-20KHZ**

**SENSITIVITY: 99DB/W/M**

**IMPEDANCE: 4Ω**

**RATED POWER: 350W**

# Dante Controller and DVS Virtual Sound Card Instructions



Dante Controller is a software application provided by Audinate that allows users to configure and route audio signals on the Dante network. It is compatible with Windows and OS X. After installing Dante Controller on PC or Mac, connect it to Dante network, and you can use Dante Controller:

- View all Dante-enabled audio devices and their channels on the network
- View the clock and network settings of Dante-enabled devices
- Route audio on these devices and view the status of existing audio routes
- Lock and unlock Dante devices
- Change the label of the audio channel from the digital music that suits you
- Custom receive delay (delay before playing)
- Save audio routing presets
- Apply previously saved presets
- Edit presets offline and apply as configuration for new network deployment
- View and set each device configuration options, including:
  - ★ Change the device name
  - ★ Change the sampling rate and clock settings
  - ★ View detailed network information
  - ★ Visit the device webpage to upgrade firmware and license information (if supported)
  - ★ Identify the device, for example, identify by flashing the LED (if supported)
- View network status information, including:
  - ★ Multiple bandwidths on the web
  - ★ Transmit and receive bandwidth for each device
- View device performance information, including potential statistics and grouping errors
- View clock status information, including frequency offset history and clock event log

## First, install Dante Controller

### 1. Download Dante Controller

All users can download Dante Controller from the Audinate homepage for free at [www.audinate.com](http://www.audinate.com).

### 2. Install Dante Controller under windows

Install Dante Controller under windows, please make sure the win system is win7 or more advanced version before installation, download different installation packages according to different operating systems and log in to the computer as an administrator

- 1) Double click the Dante Controller installer file.
- 2) Read the license agreement, if you choose another method, select the "I agree" check box, and then click Install.
- 3) Confirm any Windows security prompts, and after installation, Dante Controller will be added to the 'Audinate' under the start menu.

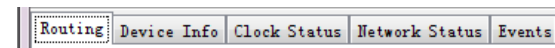
### 3. Install Dante Controller under MAC OS X

Install Dante Controller under MAC OS X. Before installing, please make sure that Mac OS X is 10.10.5, 10.11.6 and 10.12. Choose different installation packages according to different operating system models.

- 1) Double click the Dante Controller. dmg installer file, and a drive icon will pop up in your desktop search window. Double click this to open
- 2) Double click Dante Controller. pkg to run the installer.
- 3) Read the license agreement, if you choose another method, select the "I agree" check box, and then click Install.

## Second, Dante Controller operation instruction

### 1. Main options of Dante Controller

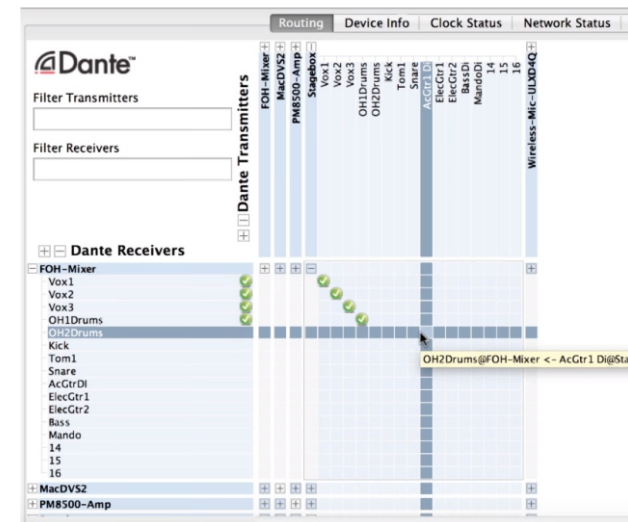


Option	Feature
Routing	To connect and change channel by channel between devices
Device Info	No operation provided. Provide only Dante device information on the network
Clock Status	Clock Status allows setting the main clock and external synchronization preferences
Network Status	No operation provided. Provide only report network speed, Dante redundancy, delay and packet errors
Events	System activity log

### 2. Discovery and automatic configuration

When a Dante-enabled device is connected to IP/Ethernet, it will automatically:

- 1) Configure the IP address
  - 2) Automatically post and allow auto discovery
- Dante devices can connect to the network in just a few seconds, and Dante Controller will automatically discover and display the device to offer convenience to configure channels and route audio.
- In the Routing View (pictured below), the receiving channel is displayed along the left vertical axis, and the sending channel is displayed along the top horizontal axis. To view all channels of the device, click the + sign of the device. Connection (we call it "subscription") is easy, just turn on the sending and receiving devices to connect, and then click on the intersection of the channels to connect. When there is a green √, the subscription is activated

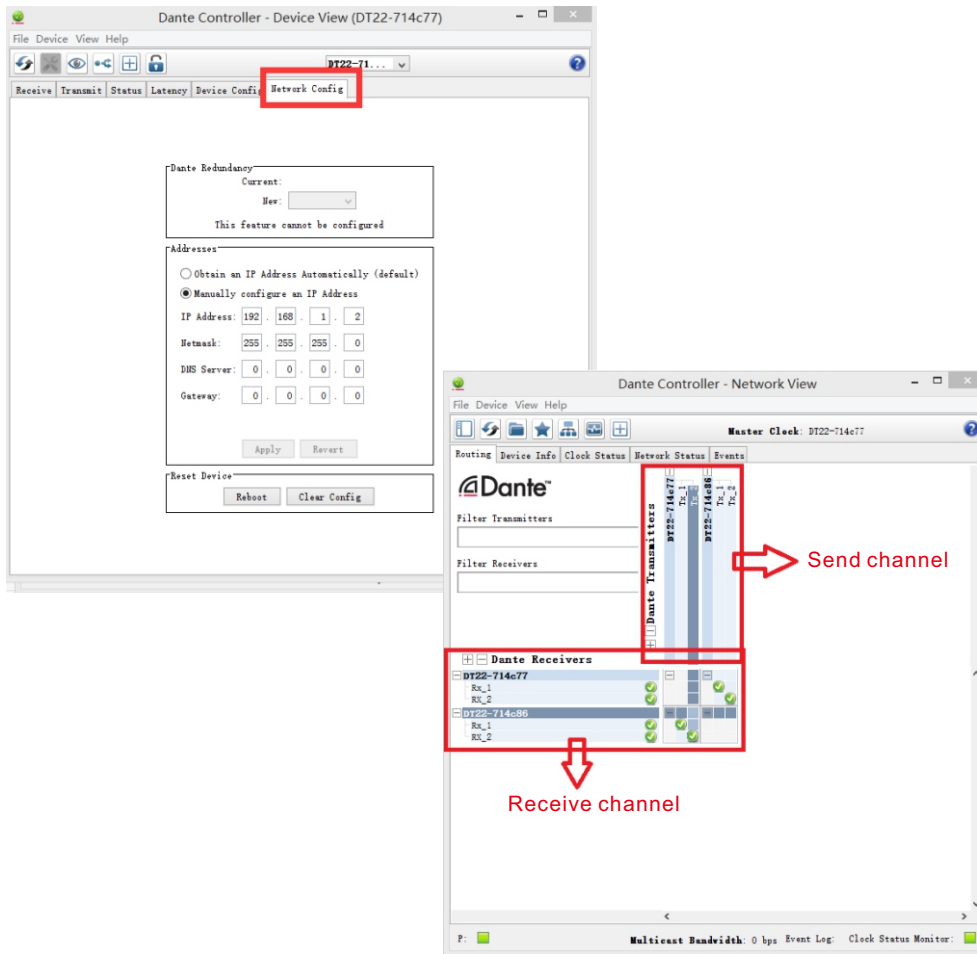


### 3. Network automatic configuration

- 1) Dante devices that have been connected to the network will automatically configure the network, including their IP addresses;
- 2) If there is a DHCP (Dynamic Host Configuration Protocol) service in the network, the Dante device will automatically receive the IP and configure by the standard DHCP protocol (that is, automatically obtain the IP);
- 3) On a network without DHCP, that is, a fixed IP is set on the network, set the IP address of the Dante device according to the IP of the same network segment as the network.
- 4) If the Dante device is required to be connected to a fixed IP network, double click the device on the Routing interface to enter the Network config interface to modify the IP address.

### 4. Device channel

- 1) Dante devices have multiple relevant channels, these are transmit (TX) or receive (RX) channels. The receive channel and equipment are located on the left side of the route, and the transmit channel and equipment are located on the top of the route (see the figure below for details)



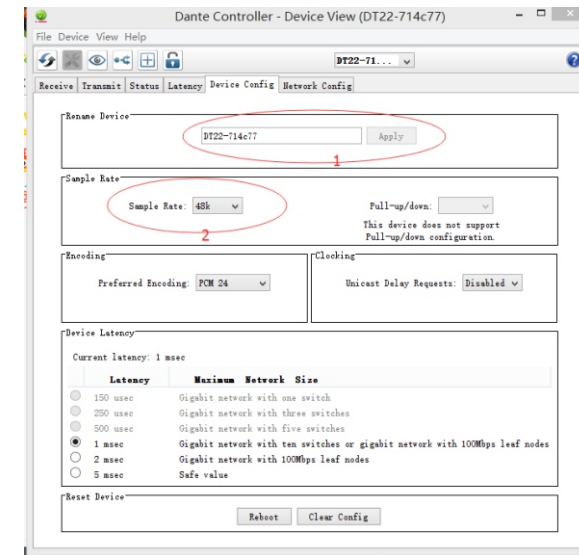
- 2) One transmit channel can correspond to one or more receive channels;
- 3) One receive channel will receive audio from only one send channel through the network.
- 4) There are different icons during the channel selection. The meanings of the different icons are as follows:

	Selecting channel, please wait
	Channel has been selected: connection established and full featured
	Warning: The channel is not selected yet, usually because the sending device is not visible on the network (for example, because it has been deleted or turned off)
	Error: An error has occurred in the device. For example, the channel bandwidth is insufficient, and the device sampling rate is inconsistent.
	Wait: Some channels have been selected and the icon usually pops up when multiple channels are selected at once.

### 5. Rename the device

The name of the device displayed on the Dante Controller is the default factory name, which can be modified according to actual demands. Modify as follows:

- 1) On the Routing interface, double click the device to be renamed
- 2) After double-clicking, the following interface pops up, enter the new name at number 1 in the figure below

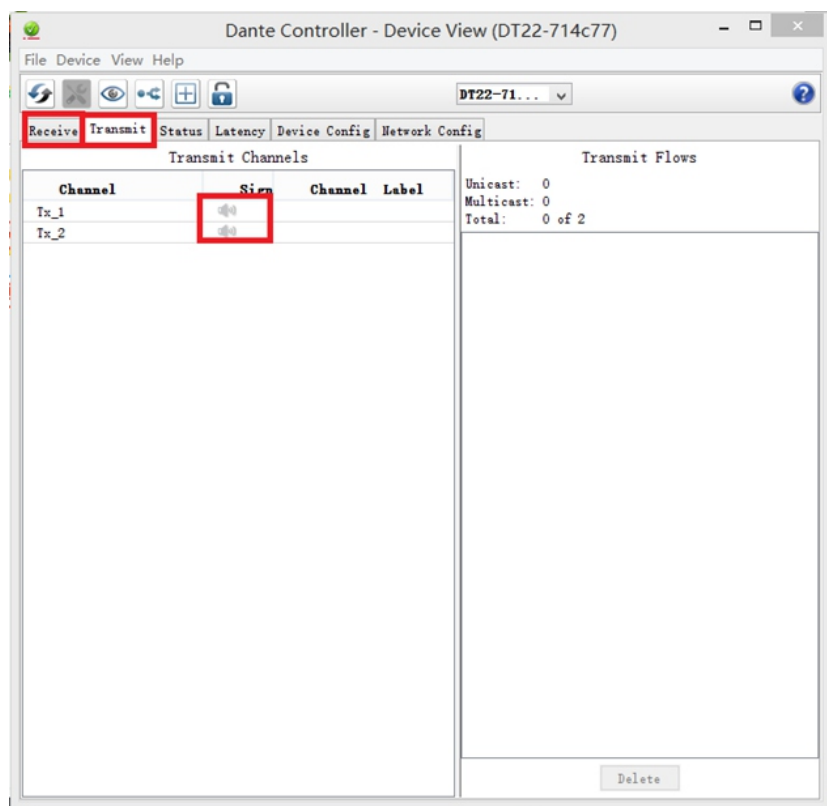


### 6. Sampling rate configuration

The devices connected to the Dante Controller can only be connected at the same sampling rate. There can be connections of devices with different sampling rates in the network. The sampling rate setting is the same as the method of renaming. On the Routing interface, double click the device that is required to set the sampling rate, and then as shown in Figure 2 above, the connected devices must have the same sampling rate.

## Third, troubleshooting

- ① If the Dante Controller cannot detect the device, please confirm the following:
  - ▲ Whether the IP address is correct, the device IP address is in the same LAN as the computer used by Dante Controller
  - ▲ Whether the device IP address conflicts with other device addresses
  - ▲ Whether the power supply of the device is normal
  - ▲ Whether the connection line is normal
- ② If the device can be found but has no sound, please confirm whether to select the channel used in channel setting, and meanwhile confirm whether the wiring is connected correctly.
- ③ Each time the physical line of the device changes, the routing is required to be reconfigured on the Dante Controller.
- ④ When all devices are connected normally, but the amplifier has no sound output, please confirm:
  - ▲ Whether the wiring of the output and input terminals is correct
  - ▲ Whether the amplifier is working normally
  - ▲ Whether the audio signal transmission and reception are normal. Under normal circumstances, double click the device and the following interface will pop up. You can view the signal status of the channel on the two pages of Receive and Transmit. When the speaker icon is Green, it means that the audio signal is transmitted or received normally.



## Fourth, Dante Virtual Soundcard

Dante Virtual Soundcard (DVS) is a virtual sound card software that can record or play up to 64 high-quality network audio channels. Dante Virtual Soundcard can turn any Mac or Windows PC into a Dante audio device.

You can use Dante Virtual Soundcard on any audio program you prefer, including DAWs like Logic, Pro Tools and Cubase, or performance tools like Reason.

Dante Virtual Soundcard is essentially a driver control panel that connects audio to the Dante network. When Dante Virtual Soundcard starts, you can close the application and the driver will continue to run.

On a Windows computer, Dante Virtual Soundcard supports two different types of drivers, ASIO and WDM.

Drive type	
ASIO	The ASIO driver is the most commonly used, suitable for professional, multi-channel audio applications. The ASIO audio channel does not appear in the Windows sound control panel, but can be selected within the supported applications.
WDM	WDM drivers are usually associated with Windows audio devices and are used in consumer audio applications.

In general, ASIO is suitable for multi-channel applications with high performance and low latency recording, such as Nuendo or ProTools. Use WDM to get audio from consumer audio applications, such as iTunes, VLC, or Windows Media Player.

Audio Channels is to set the audio channels number to use. Choose the minimum suitable for your project to save your computer resources.

Please note the following issues when using DVS as a Dante device,:

- 1) Whether the player selects the DVS channel as the output channel;
- 2) Whether DVS has been selected as the computer's default sound output device.