FS-FHSS Wireless

Congress System

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◆ FS-FHSS Wireless Congress System DCS-3024

◆ Congress Terminal
DCS-3024C-W/DCS-3024D-W

◆ Basic Functions

- ♦ FS-FHSS frequency selecting-and-hopping technology, with spectrum monitoring and screening functions; support intelligent hopping of carrier frequency, and can automatically select a clean frequency point when speaking every time
- ♦ Adopt fully-digital wireless communication technology, anti-interference, anti-multipath fading, not affected by light and infrared, and can be used stably in WLAN environment
- ♦ Each terminal has unique unit ID; support assign unit ID automatically or manually to ensure that multiple terminals in the same environment do not interfere with each other
- ♦ Adopt internal CRC check, audio and data are transmitted with 32-bit encrypted words to ensure the privacy of communication and avoid eavesdropping and malicious interference
- ♦ It can adjust the sensitivity of the conference terminal (0~3 levels), and adjust the best effect according to the on-site situation
- ♦ Microphone modes: AUTO , FIFO and VOX
- ♦ VOX function: in VOX mode, the microphone will be activated automatically when the user speaks; VOX sensitivity can be adjusted (L0~L2),and can be set auto-off time
- ♦ Number of speakers: The number of conference terminals that can be turned on at the same time is 4 (including 1 chairman terminal + 3 delegate terminals). The server supports two WAP cascading, which can achieve a maximum number of speakers of 8, and supports multi-chairman and vice-chairman settings
- ♦ The conference terminals support one-key shutdown, one-key sleep, and one-key wake-up functions, effectively reducing conference workload
- ♦ Optional HD video camera tracking matrix, switcher or HD camera, can realize HD automatic camera tracking, supporting preset overall view
- ♦ Microphone with on status indicator light ring, pluggable dual flexible gooseneck microphone, standard length 410mm, various lengths available
- ♦ The microphone adopts 14mm PDM digital microphone core, 48K sampling, non compressed pi / 4 DQPSK + GFSK digital modulation technology
- ♦ With multiplexed terminal speech button, short press to turn on/off the microphone, long press to turn on/off the terminal, with indicator light ring

Wireless discussion delegate terminal
DCS-3024D-W

♦ With three color LED indicator, it indicates the communication status of microphone and battery power status

♦ Removable rechargeable lithium battery, continuous on time of 10 hours, support micro USB charging and charging box centralized charging

♦ With 3.5mm earphone socket and recording interface, built-in high fidelity speaker (depending on version), volume adjustable

The chairman terminal has the exclusive functions:

♦ The chairman terminal can be free to turn on, and is not limited by the number of terminals turned on

♦ The chairman terminal has the priority button to turn off the speaking delegate terminal

◆ Technical Indicators

Color	Silvery/Black
Transmission technology	FS-FHSS selection frequency hopping, pi/4 DQPSK+GFSK digital modulation mediation
Encryption technology	32-bit encryption
Working frequency	ISM International Licensed Frequency Band
Audio frequency response	20Hz～20KHz
Sensitivity	-24 ±3 dBFs/Pa
Equivalent noise level	-87.6 dBFs
Maximum sound pressure level	120dB (THD<3%)
Total harmonic distortion	<0.05%
Signal to noise ratio	>96dBA
Microphone type	φ14mm PDM digital microphone core
Directional	0°/180°
Pole length	410mm (standard, with 310mm / 510mm length options)
Earphone Output interface	3.5 mm jack
Recording output interface	3.5 mm jack
Headset load	>16Ω
Headphone volume	10mW
Built in speaker (version dependent)	2W/8Ω
Rated voltage	3.7V
Maximum power consumption	<1.2W
Battery capacity	2600mAH
Consecutive battery use time	10 hours (depend on the different versions of the microphone)
Dimension (L×W×H)	141mm×161mm×53mm
Weight	0.58Kg (overall unit)
working temperature	0~45℃
Storage temperature	-20~50℃

Wireless discussion chairman terminal DCS-3024C-W

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Congress Server GONSIN30000S

◆ Basic Functions

- Based on LINUX operating system platform, built-in DSP digital audio processor, with howling suppression function
- High-contrast OLED screen to display the current status of the system and provide a multi-language setting menu such as Chinese/English
- FS-FHSS frequency selecting-and-hopping technology, with spectrum monitoring and screening functions; support intelligent hopping of carrier frequency, and can automatically select a clean frequency point when speaking every time
- Adopt fully-digital wireless communication technology, anti-interference, anti-multipath fading, not affected by light and infrared, and can be used stably in WLAN environment
- Adopt low-distortion, low-latency transmission technology, support 48KHz audio sampling frequency
- It can adjust the sensitivity of the conference terminal (0~3 levels), and adjust the best effect according to the on-site situation
- It supports the setting of Host ID and automatically or manually assigning ID to the conference terminals
- Microphone modes: AUTO , FIFO and VOX
- VOX function: in VOX mode, the microphone will be activated automatically when the user speaks; VOX sensitivity can be adjusted (L0~L2),and can be set auto-off time
- Number of speakers: The number of conference terminals that can be turned on at the same time is 4 (including 1 chairman terminal + 3 delegate terminals). The server supports two WAP cascading, which can achieve a maximum number of speakers of 8, and supports multi-chairman and vice-chairman settings

- The server supports one-key shutdown, one-key sleep, and one-key wake-up functions, effectively reducing conference workload
- The server provides a USB interface, which can realize the recording function
- Optional HD video camera tracking matrix, switcher or HD camera, can realize HD automatic camera tracking, supporting preset overall view
- With the intelligent speech recognition system, the voice transcription function can be realized

TCP / IP connection control mode is adopted between server and control computer, supporting web management function:

- It can monitor the status of the server in real time, including the number of speakers, speaking mode, connection status, internal core voltage, fault warning and other information of the server
- Support web settings for speaker number, speaking mode, microphone sensitivity, volume control and other system settings
- Support viewing version information, support network update and local update
- It can monitor the status of the microphone in real time, including online status, signal strength, frequency status, remaining battery power and other information
- Support microphone wake-up, sleep, shutdown and other operations through the Web
- Support the system operation of unit ID number writing and HD camera tracking setting through Web
- Support media playing management through Web, built-in MP3 recording and MP3 / FLAC / WAV / AAC playing function, can play recording files and stored audio files

◆ Technical Indicators

Max Capacity	500
Transmission technology	FS-FHSS selection frequency hopping, pi/4 DQPSK+GFSK digital modulation mediation
Encryption technology	32-bit encryption
working frequency	ISM International Licensed Frequency Band
Audio frequency response	20Hz～20KHz

Total harmonic distortion	<0.05%
Signal-to-noise ratio	>96dBA
Channel isolation	>85dB
Dynamic range	>94dB
Power supply	AC100～240V；50/60Hz
Communication interface	1 serial RS232 interface, 1 group of Phoenix RS485 interface
Mp3 recording and playing interface	1 USB interface
network interface	4 RJ45 interfaces, support standard POE power supply
Antenna interface	1 BNC interface, support broadcast monitoring
Audio interface	1 balanced audio output (XLR), 1 unbalanced audio output (RCA), 1 line unbalanced audio (RCA) input
Max audio output	LINE OUT: +20 dBu unbalanced, BLANCE OUT: +20 dBu balanced
Output impedance	600Ω
PC communication mode	TCP/IP
Camera control mode	RS-485 /RS-232
Max power consumption	100W
Display	OLED, size: 35mm×18mm
Limitation on the number of speakers	1/2/3+1 chairman terminal, two WAP cascading maximum number of speakers is 8
Video tracking protocol	PELCO-P/PELCO-D/VISCA
Installation	Desktop or 19' cabinet installation
Size	340mm×420mm×45mm（1U）
Weight	4.5kg
Working temperature	0~45℃
Storage temperature	-20~50℃

◆ Charging Case CHG-16

◆ Main Features

- ♦ Battery capacity and charging current management in real time.
- ♦ Charging LED indicator;
- ♦ Reverse polarity protection;
- ♦ Short-circuit protection;

◆ Technical Indicators

Power supply	AC100~240V, 50~60Hz
Max. charging voltage	4.2 V
Power	106 W
Charging time	3.5 hours
Weight	6.7 kg (net weight), 7.4 kg (full load)
Dimensions	490mm×320mm×67.5mm
Working temperature	0~45°C
Storage temperature	-20~50°C

◆ Basic Functions

- ♦ Smart management ensures a safe and reliable battery charging; The real-time management for battery capacity and charging current prolongs battery life;
- ♦ Independent modularized charging circuit provides a battery detection; this circuit does not work if there is no battery inserted;
- ♦ Charging up to 16 batteries at the same time; charging time: 3.5 hours;
- ♦ Red/green charging LED indicator.

![GONSIN logo]

◆ **Wireless Access Point** WAP-30C

◆ **Basic Functions**

- ♦ FS-FHSS frequency selecting-and-hopping technology, with spectrum monitoring and screening functions, support for intelligent hopping of carrier frequency, and automatically select a clean frequency point when speaking every time
- ♦ Adopt full-digital wireless communication technology, anti-interference, anti-multipath fading, not affected by light and infrared, and can be used stably in WLAN environment
- ♦ Adopt internal CRC check, audio and data are transmitted with 32-bit encrypted words to ensure the privacy of communication and avoid eavesdropping and malicious interference
- ♦ Built-in high-performance communication antenna, stable wireless signal coverage: 30 meters
- ♦ Support two WAP cascading, which can achieve a maximum number of speakers of 8, or expand the coverage area of wireless signals
- ♦ Network port connection, support standard POE and DC power supply
- ♦ With intuitive working status indicator
- ♦ Support wall-mounted / bracket / ceiling / desktop placement of a variety of installation methods, can adapt to the installation environment of various types of venues

◆ **Technical Indicators**

Color	White
Transmission technology	FS-FHSS selection frequency hopping, pi/4 DQPSK+GFSK digital modulation mediation
Encryption technology	32-bit encryption
Working frequency	ISM International Licensed Frequency Band
Network interface	1 RJ45 interface, support standard POE power supply
Power interface	1 DC interface, support 24V DC power supply
Wireless signal coverage	30 meters (stable communication distance)
size	260mm×260mm×68mm
Weight	1.2Kg
Working temperature	0~45℃
Storage temperature	-20~50℃

◆ **Transport Case** DCS-16

DCS-16 utilizes all-in-one design, is the multi-function package equipment which is applied in the storage and transport of the DCS-3024 system. It is designed as a flight case with universal wheels. The material of the case is solid, shockproof and crash-proof. It is convenient for users to store, remove and transport the products so that it is suited to the temporary conference and rental market.
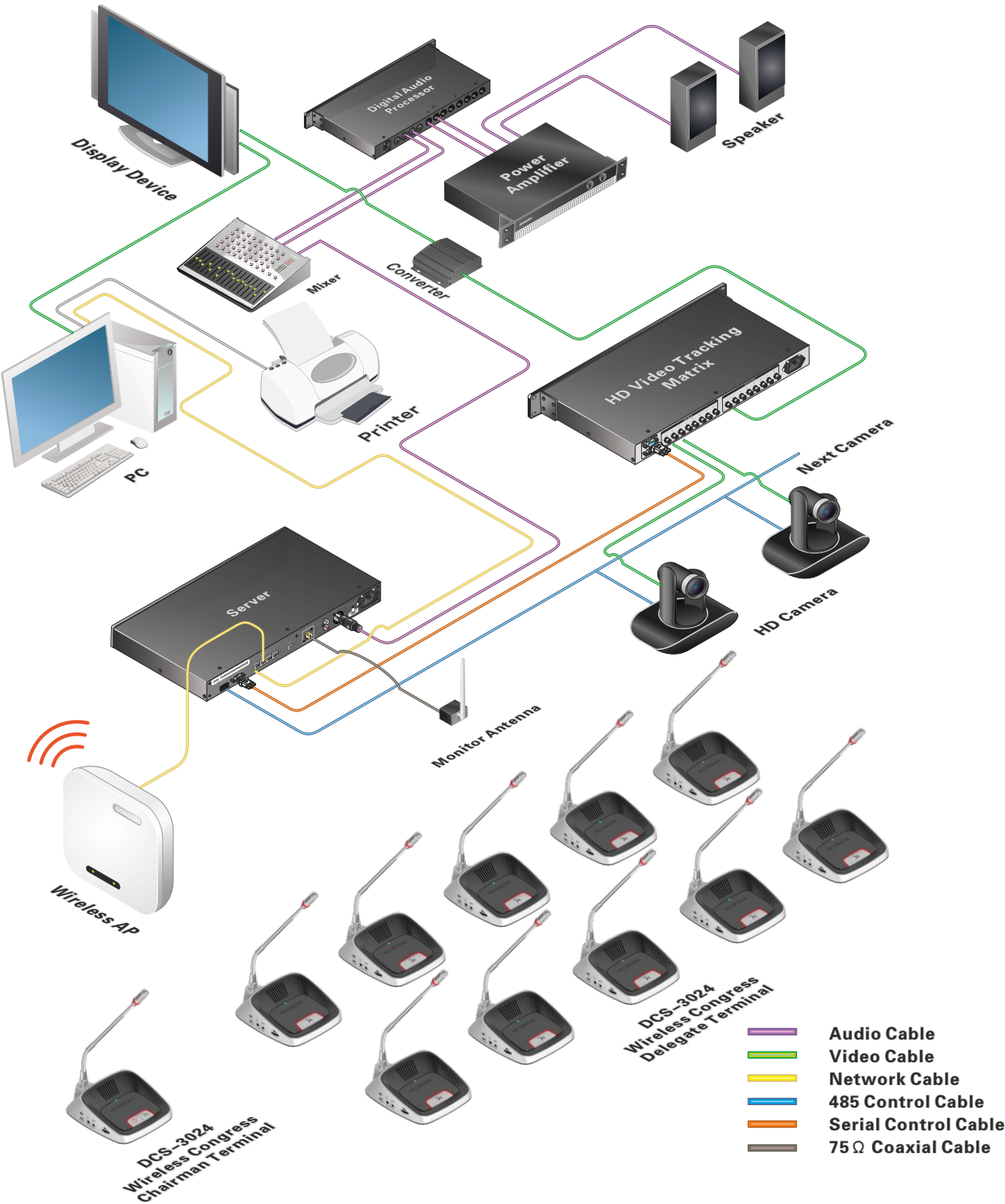
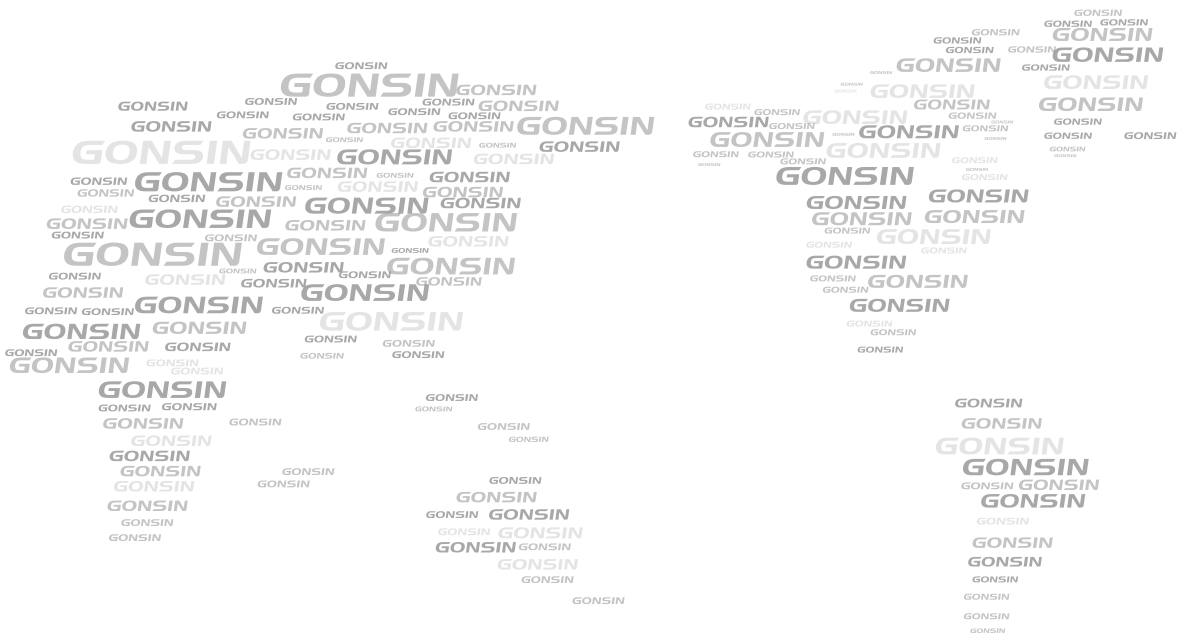## ◆ **One transport case can contain**

- ♦ One congress server
- ♦ 16 congress terminals
- ♦ 16 microphone stems
- ♦ 2 wireless AP
- ♦ One charging case

◆ **Technical Indicators**

Universal wheel	4 wheels
Dimensions(LxWxH)	750mmx500mmx800 mm (including universal wheels)
Empty weight	29Kg

◆ System diagram

Display Device

Digital Audio Processor

Speaker

Power Amplifier

Mixer

Converter

HD Video Tracking Matrix

Next Camera

PC

Printer

HD Camera

Server

Monitor Antenna

Wireless AP

DCS-3024 Wireless Congress Delegate Terminal

DCS-3024 Wireless Congress Chairman Terminal

Audio Cable
Video Cable
Network Cable
485 Control Cable
Serial Control Cable
75Ω Coaxial Cable

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