

## Rack Mountable Digital Mixer with 20 Channels



D N 2 0

## 20-channel Digital Mixing Console DN20

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# System Description

DN20 is a high-quality digital mixing console with an integrated rack-mount design. It can be directly controlled through a 7" touch screen, and can also be remotely controlled through a computer or a tablet. With two control modes, it is more flexible and more convenient to use.

DN20 digital mixing console has 20 channels of signal input/output and 8 channels of mic input (with 48V phantom power), as well as Bluetooth and USB playback function. Also, it has monitoring, recording and other functions for easy tuning, and supports optical fiber and other inputs/outputs to greatly reduce the noise of the interference signal and achieve the effect of noise reduction.

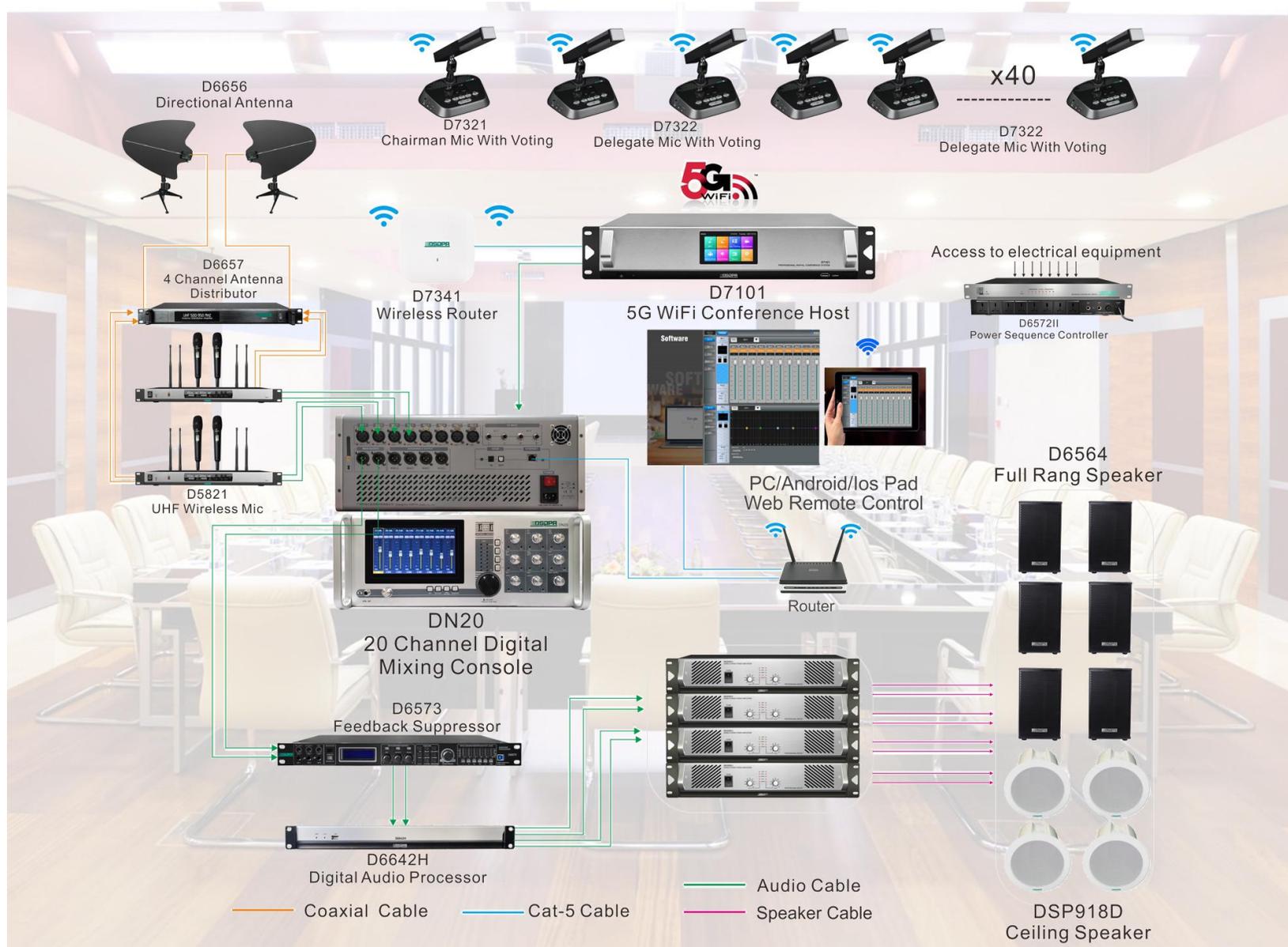
DN20 digital mixing console has built-in DSP functions such as gain controller, feedback suppressor, equalizer, mixer, reverb, compressor, etc. for input and output, which can be used according to the needs of various scenarios, such as conference rooms, lecture halls, broadcasting stations, stages and auditoriums, for easy tuning, providing you with higher quality tuning.



# ■ Solution Example 1 - Conference Room



# Solution Example 1 - System Diagram



# ■ Solution Example 1 - Product List

## System Components: 5G WiFi Conference System + Professional Sound Reinforcement System

1. The whole system is mainly composed of D7101 5G WiFi conference system, and professional sound system equipment. Among them, the professional sound system is mainly composed of speakers, power amplifiers, mixing consoles, microphones, sound source equipment and other equipment, which can meet the needs of conferences, speeches, symposiums, etc.

2. DN20 rack-mount mixing console, D6573 and D6642H are used as professional audio processing equipment to make the on-site speech clear, without distortion or sound feedback howling, etc.

3. The conference system is composed of the D7101 conference system and conference units, as well as professional sound system. When the participant speaks to the chairman/delegate unit D7321/D7322, the audio is processed through the mixing console DN20 and sent to the processor D6642H, then output to the power amplifier MX2500II, and amplified through the power amplifier and further sent to the speaker D6564 and the ceiling speaker DSP918D to realize local sound reinforcement. Take 6 speakers D6564 for main sound reinforcement and 4 ceiling speakers DSP918D for complement, so as to realize sufficient on-site sound pressure margin, uniform sound field, accurate sound image positioning, etc.

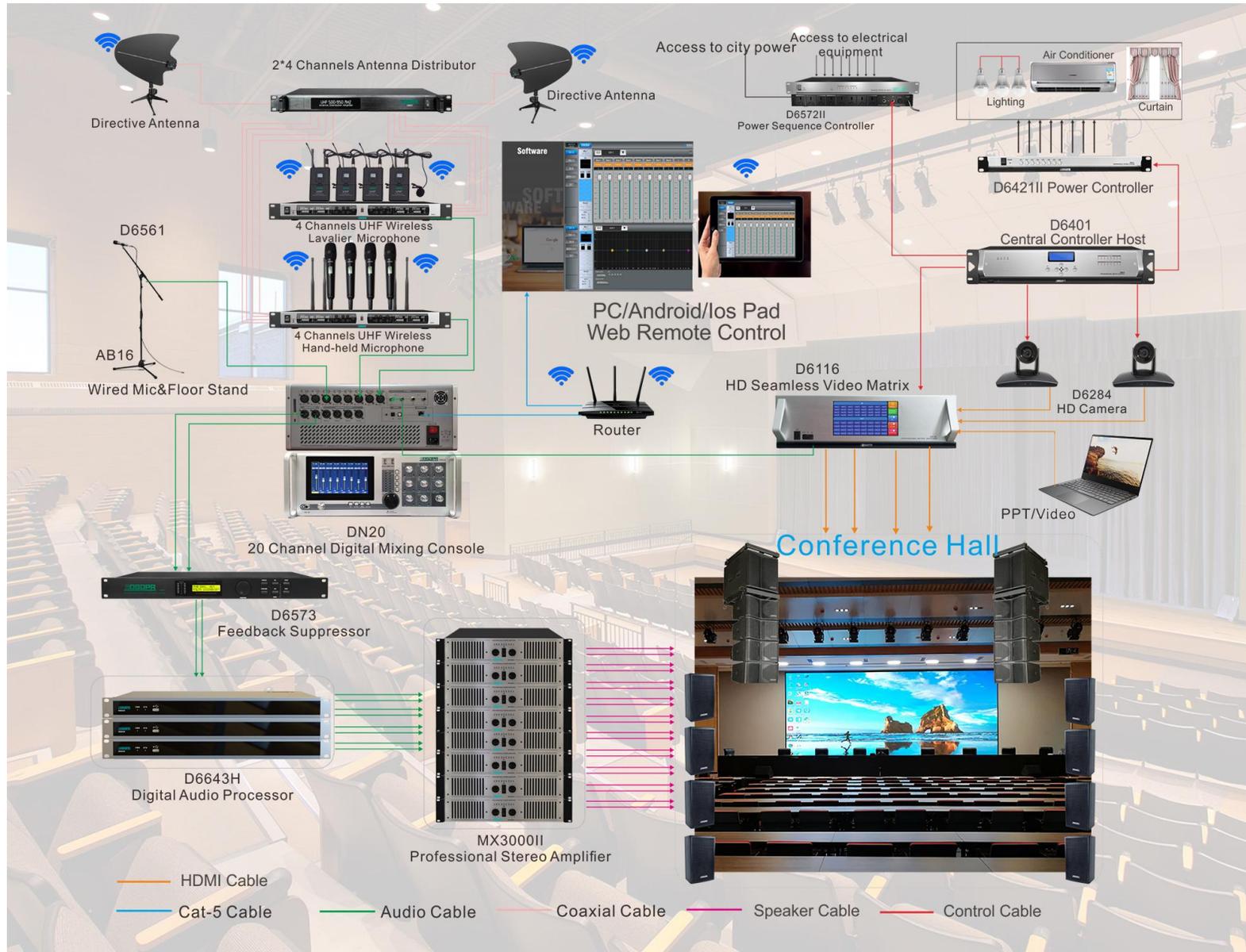
### Product List:

Model	Name	QTY
D7101	IP Network Conference System Host	1
D7321	5G WiFi Conference Chairman Microphone with Voting	1
D7322	5G WiFi Conference Delegate Microphone with Voting	40
	24 Ports POE Switch	2
D7341	5G WiFi Wireless Router	1
D5821	UHF Wireless 2 Hand-held MIC System	2
D6656	Wireless Microphone Directional Antenna	2
D6657	Wireless Microphone Antenna Distributor	1
DN20	20-channel Rack-mounted Digital Mixing Console	1
D6573	Feedback Suppressor	1
D6642H	Digital Audio Processor with 8 IN & 8 OUT	1
MX2500II	Professional Stereo Amplifier	4
D6564	10" Two-way Full Range Speaker	6
D5A	Professional Speaker Bracket (Wall Mount)	6
DSP918D	60W Coaxial Ceiling Speaker with Power Tap	4
D6572II	8-channel Power Supply Sequence Controller	2
MP30U	30U 19" Rack with Door and Fan	1

## ■ Solution Example 2 - Auditorium/Lecture hall



# Solution Example 2 - System Diagram



## Solution Example 2 - Product List

### Product List:

Model	Name	QTY
D5841	UHF Wireless 4 Hand-held MIC System	1
D5842	UHF Wireless 4 Lavalier-type MIC System	1
D6656	Wireless Microphone Directinal Antenna	2
D6657	Wireless Microphone Antenna Distributor	1
D6561	Wired Hand-held Dynamic Microphone	1
AB16	Floor Stand for MIC	1
D6116	16-channel HD Seamless Mixed Matrix Host Box	1
D6104HR	4-channel Digital HD Audio & Video Input Card	4
D6104HC	4-channel Digital HD Audio & Video Output Card	4
DN20	20-channel Rack-mounted Digital Mixing Console	1
D6573	Feedback Suppressor	1
D6643H	Digital Audio Processor with 12 IN & 12 OUT	3

Model	Name	QTY
MX3500II	Professional Stereo Amplifier	9
D6565	12" Two-way Full Range Speaker	8
D5A	Professional Speaker Bracket (Wall Mount)	8
LA1420	Passive Full Range Array Speaker	8
LA1420S	Passive Array Subwoofer	2
D6401	Multimedia Central Control Host	1
D6421II	Power Controller	1
D6284	High-definition Camera	2
D6572II	8-channel Power Supply Sequence Controller	3
MP40U	40U 19" Rack with Door and Fan	1

## ■ Solution Example 2 - Product List

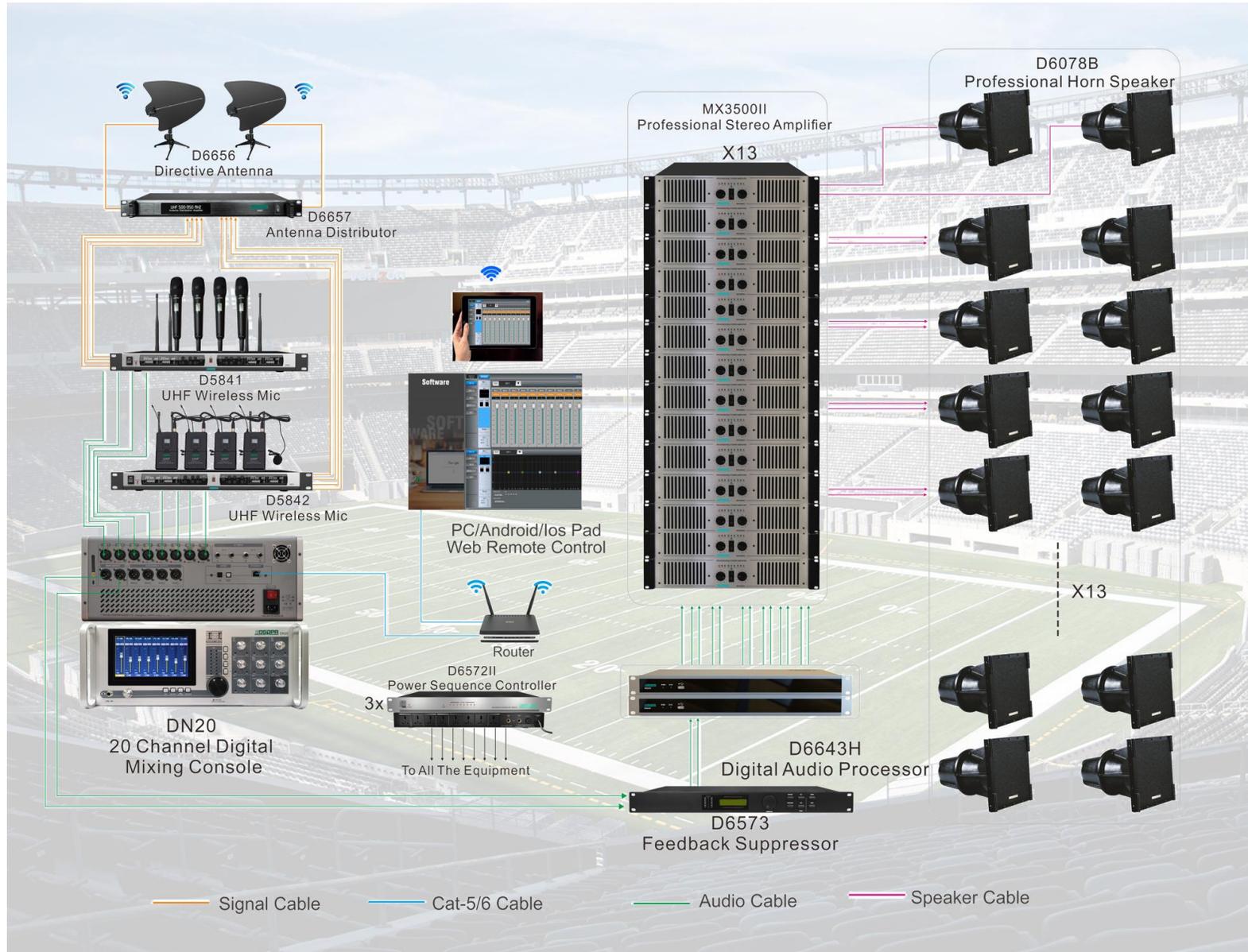
### **System Components: Professional Sound System + Video Matrix System + Central Control System**

1. The entire professional sound system is mainly composed of speakers, power amplifiers, audio processors, mixing consoles, microphones, sound source equipment and other equipment, which can meet the needs of work reports, PPT speeches, and symposiums.
2. DN20 rack-mount mixing console, D6573 and D6643H are used as professional audio processing equipment to make the on-site speech clear, without distortion or sound feedback howling, etc.
3. Take line array speakers LA1420/1420S for main sound reinforcement and wall-mounted speakers D6565 on both sides for complement, so as to realize clear on-site speech without distortion, sufficient sound pressure margin, uniform sound field, without sound feedback howling, and accurate sound image positioning.
4. The indoor sound pressure can fully meet the index requirements of the national first-class auditoriums.

# ■ Solution Example 3 - Stadium



# Solution Example 3 - System Diagram



## ■ Solution Example 3 - Product List

1. The entire professional sound system is mainly composed of speakers, power amplifiers, audio processors, mixing consoles, microphones, sound source equipment and other equipment, which can meet the needs of work reports, PPT speeches, and symposiums.
2. DN20 rack-mount mixing console, D6573 and D6643H are used as professional audio processing equipment to make the on-site speech clear, without distortion or sound feedback howling, etc.
3. Set 26 horn speakers D6079B around the stadium, so as to realize clear on-site speech without distortion, sufficient sound pressure margin, uniform sound field, without sound feedback howling, and accurate sound image positioning.
4. The indoor sound pressure can fully meet the index requirements of the national first-class auditoriums.

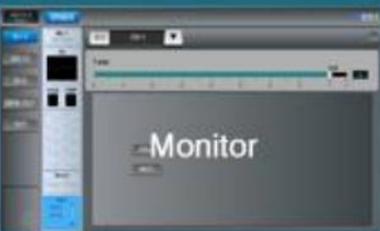
### Product List:

Model	Name	QTY
D5841	UHF Wireless 4 Hand-held MIC System	1
D5842	UHF Wireless 4 Lavalier-type MIC System	1
D6656	Wireless Microphone Directional Antenna	2
D6657	Wireless Microphone Antenna Distributor	1
D6561	Wired Hand-held Dynamic Microphone	1
AB16	Floor Stand for MIC	1
DN20	20-channel Rack-mounted Digital Mixing Console	1
D6573	Feedback Suppressor	1
D6643H	Digital Audio Processor with 12 IN & 12 OUT	2
MX3500II	Professional Stereo Amplifier	13
D6079B	400W 8Ω 15" Remote Horn Speaker	26
D6572II	8-channel Power Supply Sequence Controller	4
MP40U	40U 19" Rack with Door and Fan	1

# Attainable Functions

## Make your own magic

With TCP/IP protocol, various parameters can be adjusted and controlled on the web page.



48V phantom power  
for each channel.

With input and output gain controller, feedback suppressor, equalizer, mixing, reverbation, compressor, and other DSP functions.



## ■ Attainable Functions

# Input/output of DN20 Digital Mixing Console

## Input:

8-channel MIC/ LINE  
2-channel stereo  
1-channel USB flash  
disk playback  
1-channel USB sound card  
1-channel optical fiber  
.....

## Output:

Main L/R  
BUS1/2/3/4  
Monitor  
Optical fiber and USB  
flash disk recording  
.....

## Attainable Functions

**DSPPA**

# Multiple Features

Volume adjustment

Adjustment of reverberation

Equalizer

Limiter



Monitor&recording

Noise gate

Other functions

# ■ Main Devices

## DN20 20 Channel Digital Mixing Console



### Features:

- Adopt integrated rack-mount design, beautiful in shape, small in occupation, more flexible and convenient to operate.
- Support control through the 7" touch screen, and remote control through a computer or a tablet to adjust and control various parameters on the Web side.
- With 8 channels of MIC, 2 channels of stereo, 1 channel of stereo U disk, 1 channel of stereo USB sound card, 1 channel of stereo Bluetooth, 1 channel of stereo optical fiber input and other inputs.
- With Main L/R, BUS1/2/3/4, monitoring, optical fiber and U disk recording and other outputs.
- With built-in DSP functions such as gain controller, feedback suppressor, equalizer, mixer, reverb, compressor, etc. for input and output.
- With separate equalizer for multiple channels, the input and output can be balanced independently.
- With noise gate, limiter, monitoring, recording and other functions.
- With feedback suppression function switch and 48V phantom power for each MIC input, which can be controlled through the web page switch.
- Applicable to conference rooms, lecture halls, broadcasting stations, stages, auditoriums, etc.

## ■ Main Devices

# Providing simplified **20-channel** signals for your musicians to manage

Input: 8-channel MIC, 2-channel stereo, 1-channel USB flash disk playback,  
1-channel USB sound card, 1-channel Bluetooth, and 1-channel optical, etc.

Output: Main L/R, BUS1/2/3/4, monitor, optical fiber and USB flash disk recording, etc.



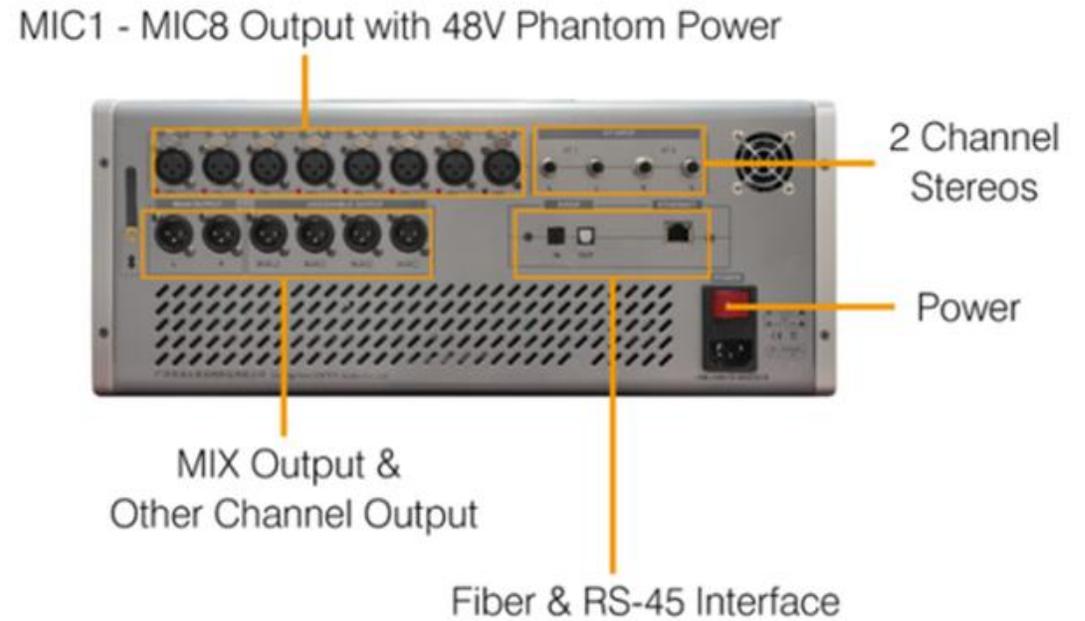
# ■ Main Devices

## DN20

### 20 Channel Digital Mixing Console

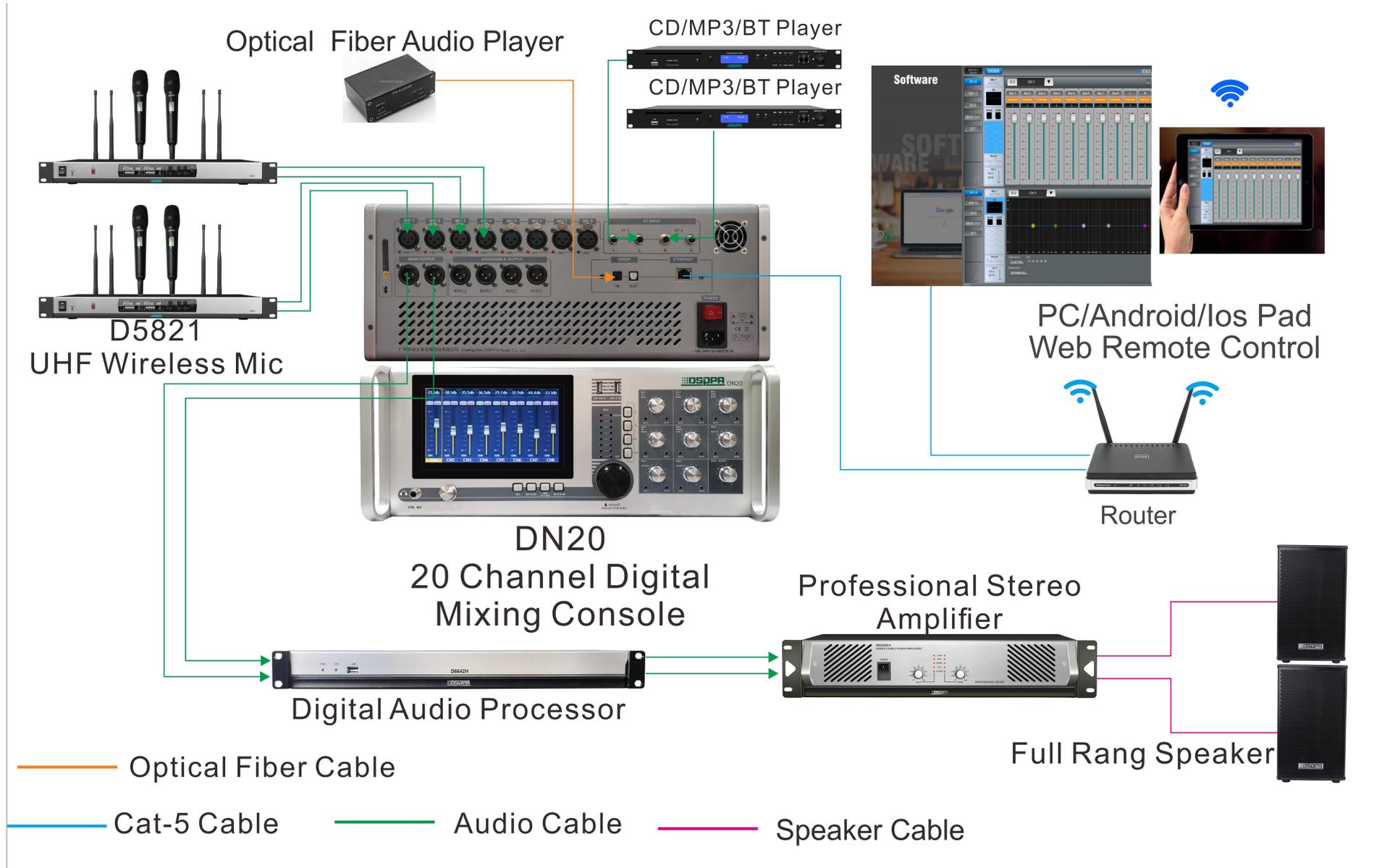


Front Panel



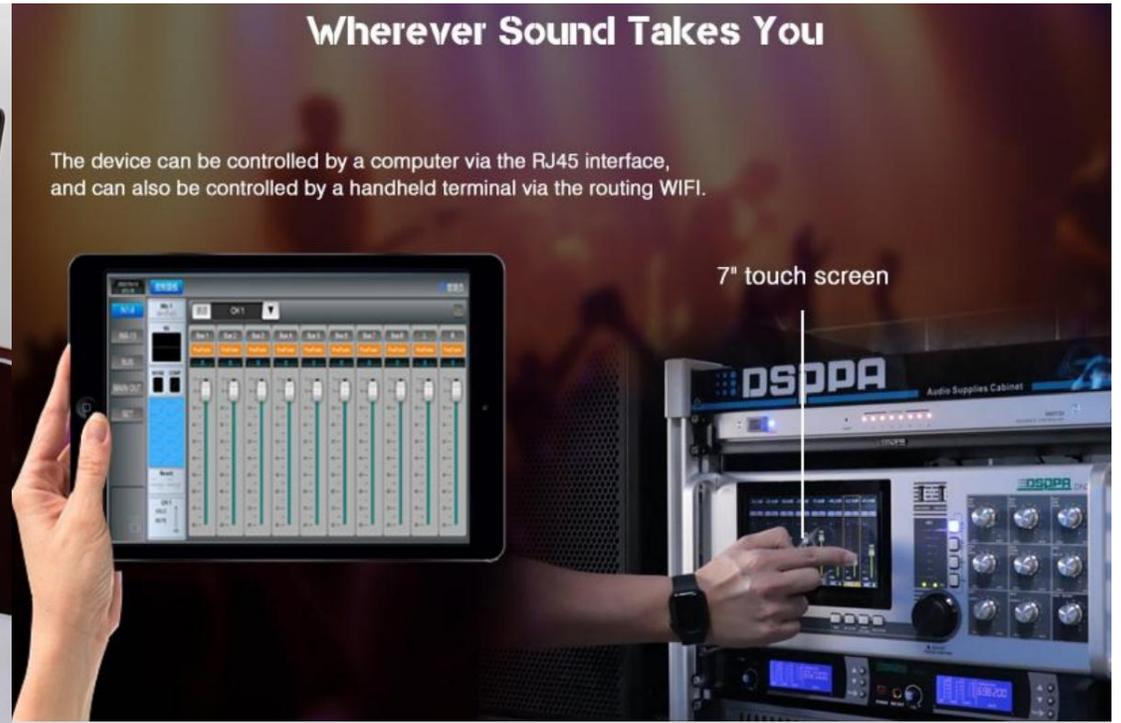
Rear Panel

# Main Devices



## ■ Main Devices

Support remote control through a computer or a tablet to adjust and control various parameters on the Web side.



Wherever Sound Takes You

The device can be controlled by a computer via the RJ45 interface, and can also be controlled by a handheld terminal via the routing WIFI.

7" touch screen

The web controller of DN20 digital mixing console is suitable for and perfectly compatible with tablet systems such as WIN7/WIN8/WIN10/Mac OS/Android/IOS.

This operation page requires Google Chrome (Google browser) for subsequent operations. If it is not installed, please go to the official website of Google to download and install it.

Two control modes MAIN-L are available for users. The mixing console can be controlled directly through the 7" touch screen, and can also be remotely controlled through a computer or a tablet, more flexible and easier to use.

## ■ Main Devices

According to the needs of various scenarios, you can adjust the volume, reverb, equalizer, mixer, noise gate, compressor, etc. on the mixing console or tablet.



Take EQ adjustment as an example:  
Each channel of the mixing console has its own equalizer. Both input and output can be balanced independently, so that the timbre and sound field of the live sound can achieve the best effect.

## Main Devices

According to the needs of various scenarios, you can adjust the volume, reverb, equalizer, mixer, noise gate, compressor, etc. on the mixing console or tablet.



Take volume adjustment as an example: Click on the volume adjustment page in the webpage, and you can see that each channel has a high-precision analog fader, and just click or drag the fader to control the volume.

## ■ Main Devices

According to the needs of various scenarios, you can adjust the volume, reverb, equalizer, mixer, noise gate, compressor, etc. on the mixing console or tablet.



Take reverb adjustment as an example:  
It is also very convenient to adjust the reverb. We can adjust the mixing time, high-frequency damping and other coefficients on the web page according to the actual situation, so that the sound has a better sense of space.

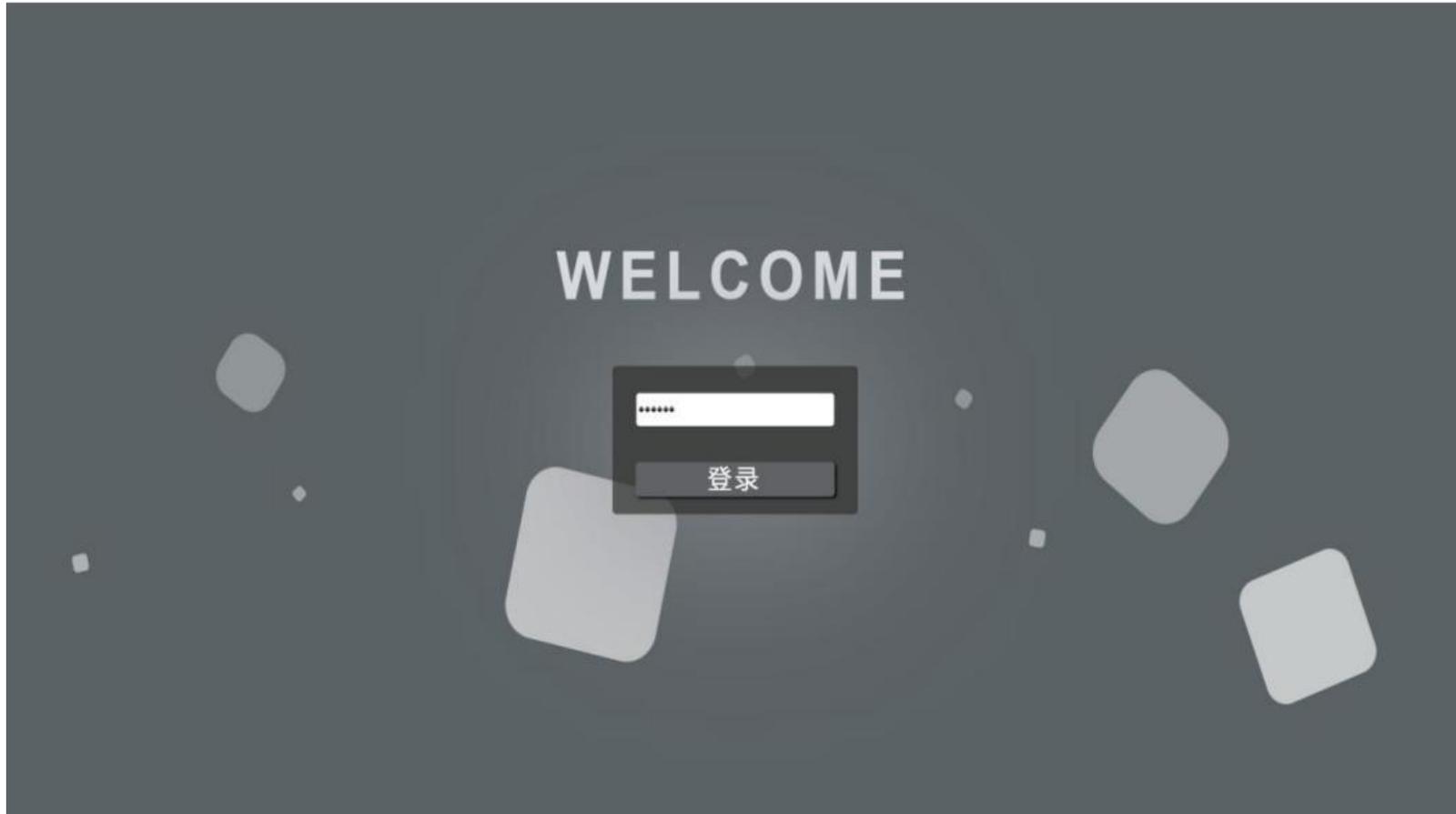
## ■ Main Devices

### Operation Interface on the Web Side

Operating Instructions

Operating Steps: Connect the computer and the audio processor via a network cable, and turn on the power of the digital mixing console. Open Chrome and enter 192.168.1.30 in the URL input box (default).

System login password: 123123.



# Main Devices

After successful login:

IN 1-8:

The screenshot displays a digital audio workstation (DAW) control panel for 8 channels. The interface is organized into several sections:

- Top Bar:** Shows the date and time (2022/04/12 10:43:20), a "控制面板" (Control Panel) button, and the user role "管理员" (Administrator).
- Channel Selection:** A vertical sidebar on the left contains buttons for "IN1-8" (highlighted), "IN9-13", "BUS", "MAIN OUT", and "SET".
- Channel Strips (1-8):** Each channel strip includes:
  - Mic Input:** Labeled "Mic 1" through "Mic 8", each with "48V" and "AFC" indicators.
  - EQ Section:** A black rectangular area for equalization.
  - Noise and Compression:** Two sliders labeled "NOISE" and "COMP".
  - Bus Routing:** A grid of 8x8 sliders for routing between Bus 1 and Bus 8.
  - Reverb Section:** Two sliders labeled "CH1" and "CH2" (or "CH3" and "CH4" for channels 3-4, "CH5" and "CH6" for channels 5-6, "CH7" and "CH8" for channels 7-8).
  - Channel Output:** Two sliders labeled "SOLO" and "MUTE", with a "0dB" indicator.
- Bottom Left:** A "USB" icon with a plug symbol.



# Main Devices

## Input EQ Control:

The screenshot displays the 'Input EQ Control' interface for 'Mic 1' on 'Channel 1'. The interface is organized into several sections:

- Top Bar:** Shows the date '2022/04/12', time '12:45:01', the title '控制面板', and the user '管理员'.
- Left Sidebar:** Contains input selection buttons: 'IN1-8' (highlighted), 'IN9-13', 'BUS', 'MAIN OUT', and 'SET'. A 'USB' icon is visible at the bottom.
- Channel Header:** Displays '通道 CH 1' with a dropdown arrow.
- EQ Section:** Features a frequency response graph with a logarithmic x-axis (20 Hz to 20 kHz) and a linear y-axis (-10 to 10 dB). Five sliders are positioned at 0 dB: a yellow slider at approximately 40 Hz, a green slider at 100 Hz, a light blue slider at 500 Hz, a gold slider at 2 kHz, and a purple slider at 10 kHz.
- Bottom Section:** Includes a 'Reverb' control, a 'CH 1 SOLO MUTE' vertical slider, and buttons for 'FLATTEN', 'EQ' (with sub-buttons 1-5), and 'BYPASS ALL'.

# ■ Main Devices

## Main Output:



## ■ Main Devices

Suitable for needs of various scenarios: such as conference rooms, lecture halls, broadcasting stations, stages, and auditoriums.



### Integrated Rack-Mounted Design

Which type is more beautiful and compact, simplifying the complicated buttons and saving more space, easier to operate.



## ■ Main Devices

Suitable for needs of various scenarios: such as conference rooms, lecture halls, broadcasting stations, stages, and auditoriums.



Conference Rooms

## ■ Main Devices

Suitable for needs of various scenarios: such as conference rooms, lecture halls, broadcasting stations, stages, and auditoriums.



**Auditoriums**

## ■ Main Devices

Suitable for needs of various scenarios: such as conference rooms, lecture halls, broadcasting stations, stages, and auditoriums.

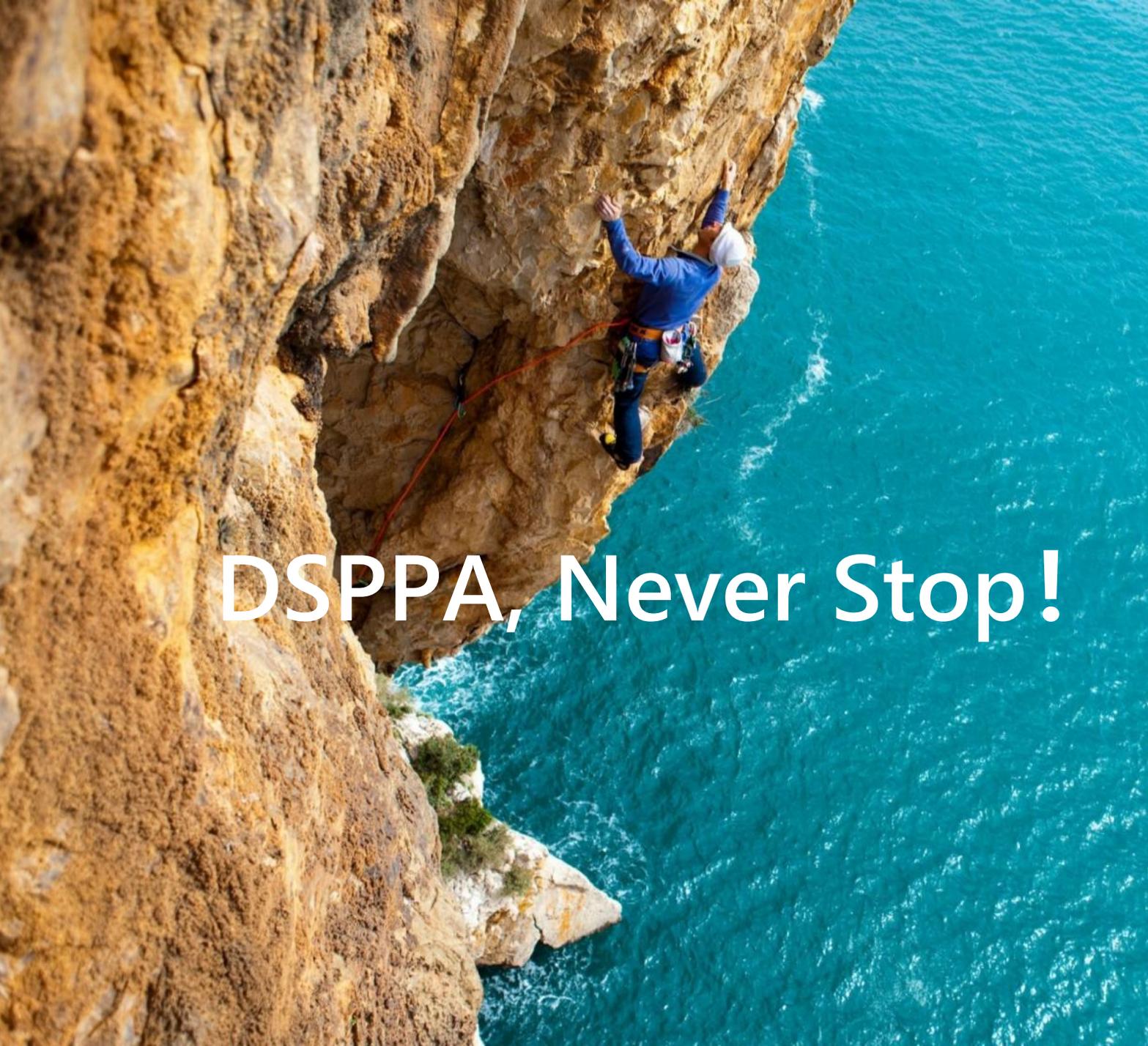


**Large Concerts**



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A photograph of a person in a blue jacket and white helmet climbing a steep, yellowish-brown rock face. The climber is positioned in the upper left quadrant of the image. The background is a vast, clear blue ocean. The text 'DSPPA, Never Stop!' is overlaid in white on the lower half of the image.

# DSPPA, Never Stop!